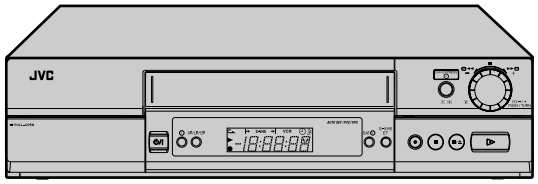
JVC

SERVICE MANUAL

VIDEO CASSETTE RECORDER

HR-S6960Ex, HR-S6965EF



Hi-Fi S-VHS 625

Super VHS ET

SHOWVIEW® DELUXE

Regarding service information other than these sections, refer to the service manual No. 82957 (HR-S8960EX). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model HR-S6960EX.)*

GENERAL

Power requirement : AC 220 V – 240 V~, 50 Hz/60 Hz
Power consumption
  Power on : 18 W
  Power off : 3.3 W
Temperature
  Operating : 5°C to 40°C
  Storage : –20°C to 60°C
Operating position : Horizontal only
Dimensions (WxHxD)
  : 400 mm x 94 mm x 270 mm
Weight : 3.3 kg
Format : S-VHS/VHS PAL standard
Maximum recording time
  (SP) : 240 min. with E-240 video cassette
  (LP) : 480 min. with E-240 video cassette
  (EP) : 720 min. with E-240 video cassette

VIDEO/AUDIO

Signal system : PAL-type colour signal and CCIR monochrome signal, 625 lines 50 fields
Recording system : DA4 (Double Azimuth) head helical scan system
Signal-to-noise ratio : 45 dB
Horizontal resolution
  (SP/LP) : 250 lines (VHS)
  400 lines (S-VHS)
  (EP) : 220 lines (VHS)
  350 lines (S-VHS)
Frequency range : 70 Hz to 10,000 Hz (Normal audio)
  20 Hz to 20,000 Hz (Hi-Fi audio)
Input/Output : 21-pin SCART connectors:
  IN/OUT x 1, IN/DECODER x 1
  RCA connectors:
  VIDEO IN x 1, AUDIO IN x 1,
  AUDIO OUT x 1
  S-Video connector:
  IN x 1

TUNER/TIMER

TV channel storage capacity
  : 99 positions (+AUX position)
Tuning system : Frequency synthesized tuner
Channel coverage : VHF 47 MHz – 89 MHz/
  104 MHz – 300 MHz/
  302 MHz – 470 MHz
  UHF 470 MHz – 862 MHz
Aerial output : UHF channels 22 – 69 (Adjustable)
Memory backup time
  : Approx. 10 min.

ACCESSORIES

Provided accessories
  : RF cable,
  Infrared remote control unit,
  "R6" battery x 2

Specifications shown are for SP mode unless otherwise specified.
E.& O.E. Design and specifications subject to change without notice.

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No.82974
2003/07

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DIFFERENT LIST

DIFFERENT TABLE OF FEATURE

The following table indicate main different points between models HR-S8960EX, HR-S6960EX and HR-S6965EF.

ITEM \ MODEL	HR-S8960EX	HR-S6960EX	HR-S6965EF
JOG/SHUTTLE DIAL ON DECK	ADV. JOG with SPUTTERING	ADVANCED JOG	←
SATELLITTE CONTROLLER	PROVIDED	OPTIONAL	←
SCART CABLE	OPTIONAL	←	PROVIDED
FLYING ERASE HEAD	USED	NOT USED	←
+1/2 DIGITAL SLOWMOTION	USED	NOT USED	←
RE-TAKE	USED	NOT USED	←
ASSEMBLE EDIT	Z.F.E.	A.F.E.	←
INSERT	USED	NOT USED	←
AUDIO DUBBING	USED	NOT USED	←
VIDEO SYSTEM : MESECAM	USED(MANUAL)	←	USED
VIDEO SYSTEM : SECAM	NOT USED	←	USED
SECAM to PAL CONVERTER	NOT USED	←	USED
3R PICTURE	USED	NOT USED	←
TBC	USED	NOT USED	←
FRAME MEMORY	USED(2M)	NOT USED	←
DIGITAL YNR	USED(3D)	NOT USED	←
DIGITAL CNR	USED(3D)	USED(2D)	←
DIGITAL S.COLOR	USED(3D)	NOT USED	←
FRONT INPUT	USED[GOLD]	USED[SILVER]	←
REAR S(4PIN) OUTPUT	USED	NOT USED	←
REMOTE PAUSE TERMINAL	USED	NOT USED	←
x1.5 PB w/AUDIO	USED	NOT USED	←
BROADCASTING STANDARD	B/G,D/K	B/G,D/K	L,L',B/G
STEREO DECODER	NICAM/A2	←	NICAM(L,B/G)/A2(B/G)
RF OUT	USED	←	NOT USED
VPS(AUTO)	USED	←	NOT USED
OSD LANGUAGE	13 LANGUAGES	←	FRENCH

Notes: Mark ← is same as left.

SECTION 3
ADJUSTMENT

3.1 Electrical adjustment

3.1.1 PAL/SECAM converter circuit [EF MODEL]

Note:

- ***Unless otherwise specified in this P/S Converter circuit adjustments, all measuring points and adjustment parts are located on the S-P Converter board.***

3.1.1.1 Colour difference level

Signal	(A1)	• Color (colour) bar signal [SECAM]
Mode	(B)	• EE
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• CN1601 Pin 7
Adjustment part	(F1) (F2)	• VR1602 (B-Y ADJ) • VR1601 (R-Y ADJ)
Specified value	(G1) (G2)	• 460 ± 20 mVp-p (B-Y) • 620 ± 20 mVp-p (R-Y)

(1) Observe the C (converted colour) waveform at the measuring point (D).
(2) Adjust the adjustment part (F1) so that the higher level of the Yellow and Blue of the C waveform becomes the specified value (G1).
(3) Adjust the adjustment part (F2) so that the higher level of the Green and Magenta of the C waveform becomes the specified value (G2).

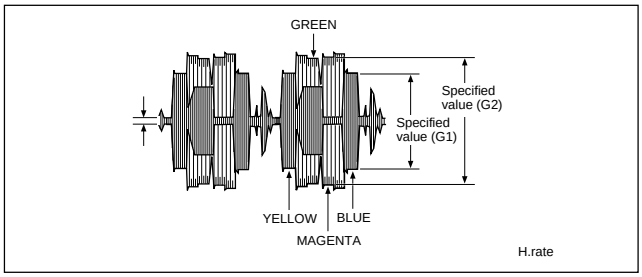

Fig. 3-1-1-1a Colour difference level

3.1.1.2 SECAM burst position

Signal	(A1) (A2)	• Ext. input • Color (colour) bar signal [SECAM]
Mode	(B)	• EE
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• CN1601 Pin 7 • CN1601 Pin 3
Adjustment part	(F)	• VR1603
Specified value	(G)	• Tr = 5.6 ± 0.1 µsec

(1) Observe the waveforms appeared at the measuring points (D1) and (D2).
(2) Adjust the adjustment part (F) so that the waveforms timing width between the H-SYNC and the colour burst signal becomes the specified value (G).

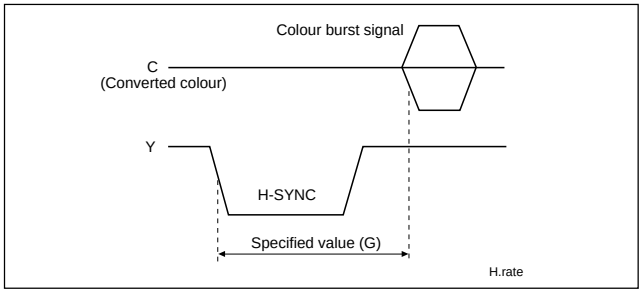

Fig. 3-1-1-2a SECAM burst position

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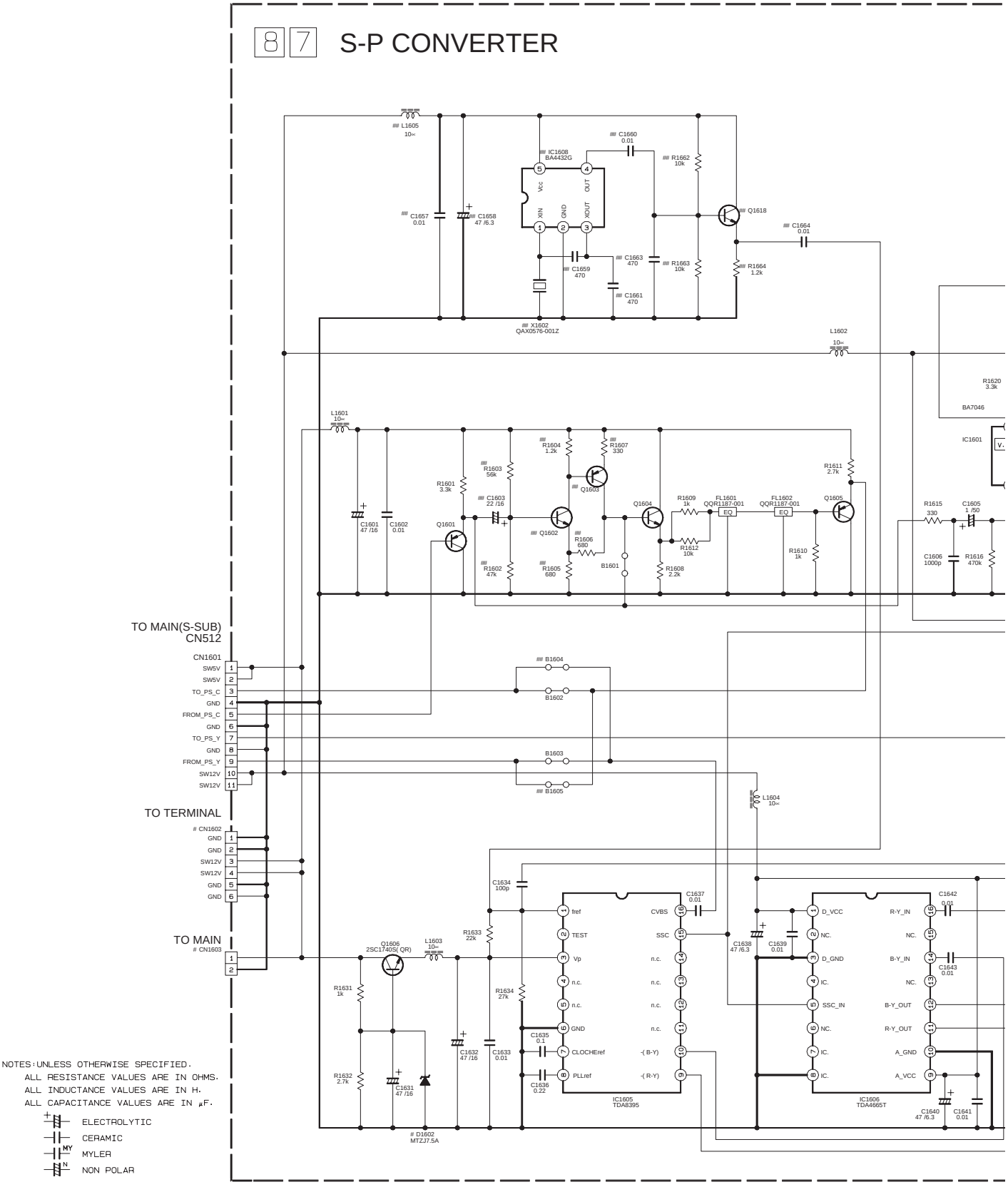
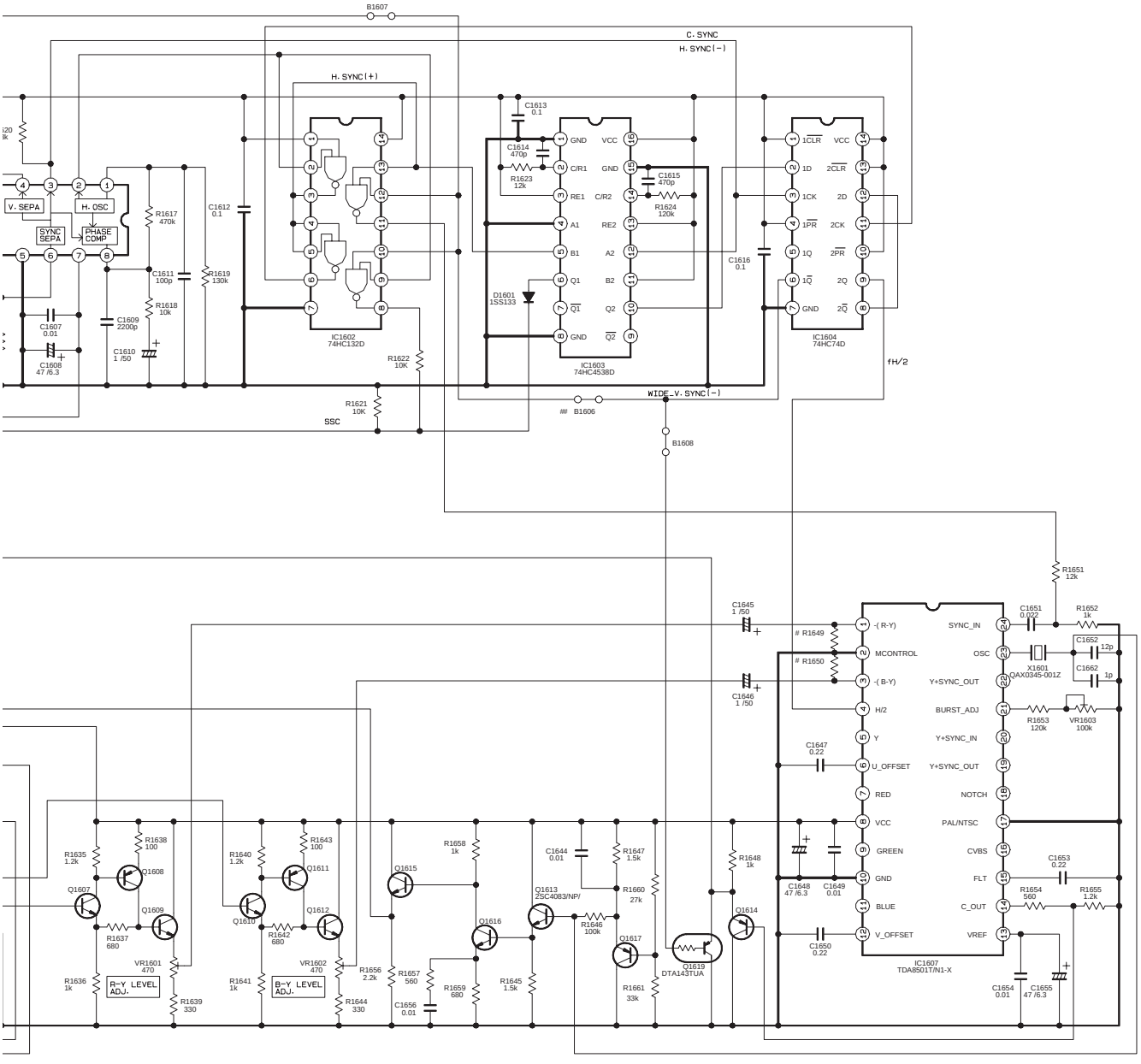
0307 VP

SECTION 4
CHARTS AND DIAGRAMS

4.1 S-P CONVERTER SCHEMATIC DIAGRAM [EF MODEL]

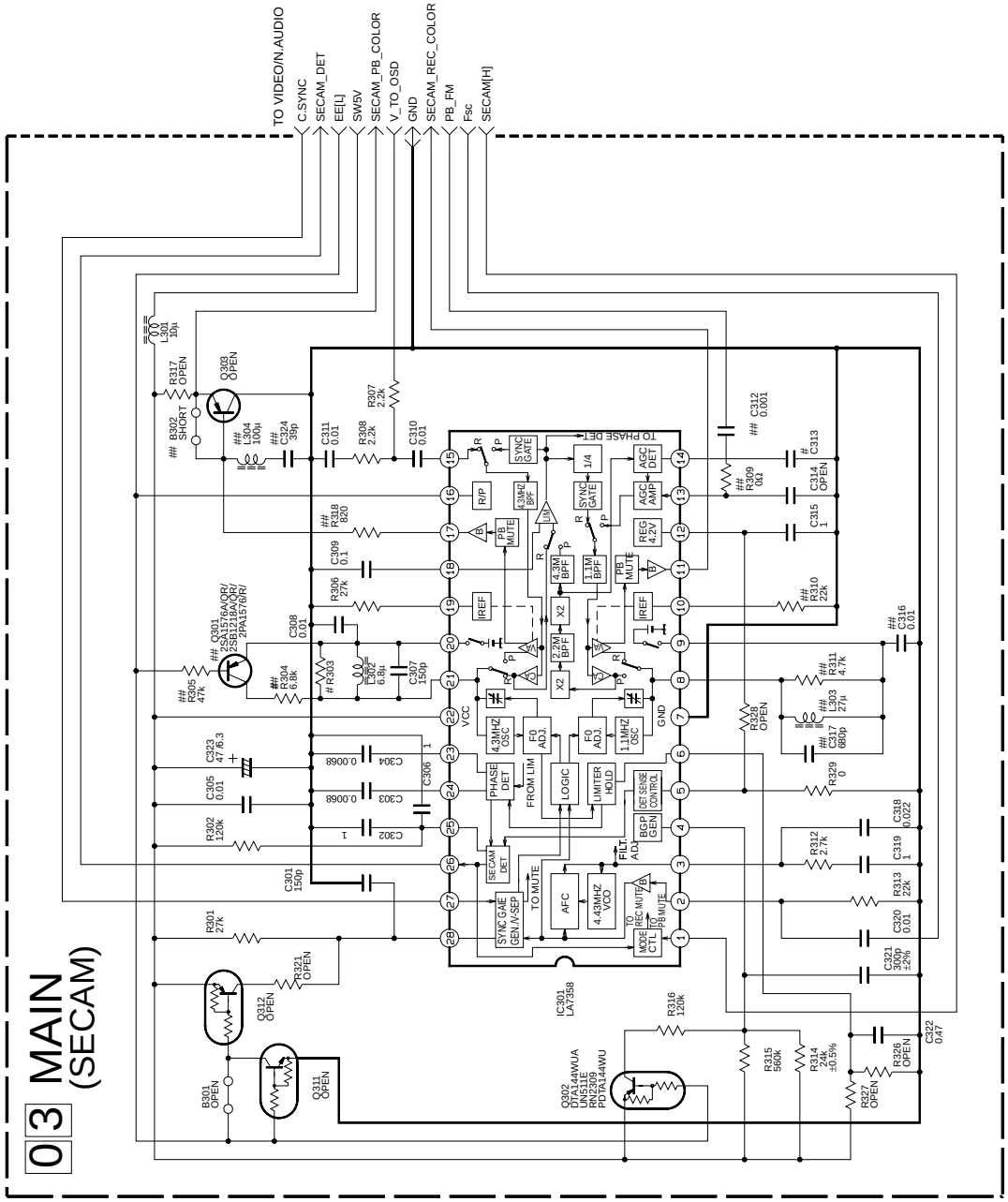




p20331001a_rev0

E F G

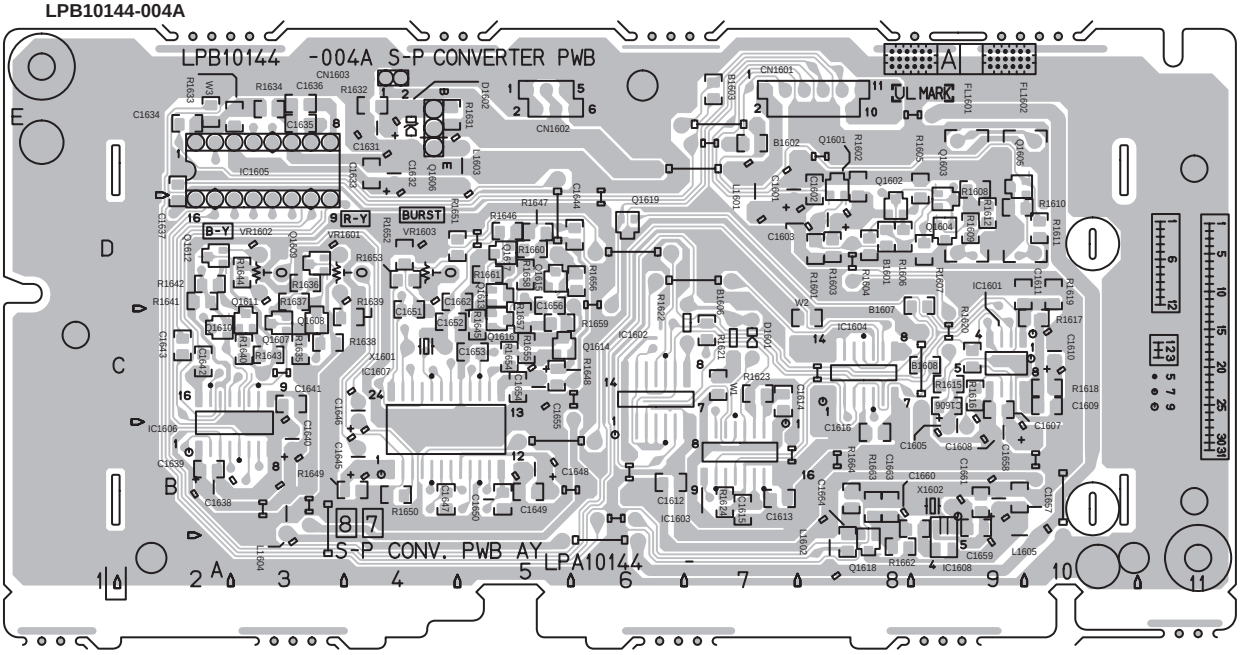
4.2 MAIN(SECAM) SCHEMATIC DIAGRAM [EF MODEL]



p30087001a_rev1

4.3 S-P CONVERTER CIRCUIT BOARD [EF MODEL]

<87> S-P CONVERTER
LPB10144-004A



COMPONENT PARTS LOCATION GUIDE <S-P CONVERTER> LPB10144-004A

REF.NO.	LOCATION
CAPACITOR	
C1601	A D 7D
C1602	B C 8D
C1603	A D 8D
C1605	A D 9B
C1606	B C 9B
C1607	B C 9B
C1608	A D 9B
C1609	B C 10B
C1610	A D 10C
C1611	B C 9C
C1612	B C 6B
C1613	B C 7B
C1614	B C 7B
C1615	B C 7B
C1616	B C 8B
C1631	A D 4E
C1632	A D 4D
C1633	B C 4D
C1634	B C 2E
C1635	B C 3E
C1636	B C 3E
C1637	B C 2D
C1638	A D 2B
C1639	B C 2B
C1640	A D 3B
C1641	B C 3B
C1642	B C 2C
C1643	B C 2C
C1644	B C 6D
C1645	A D 4B
C1646	A D 4B
C1647	B C 4B
C1648	A D 5B
C1649	B C 5B
C1650	B C 5B
C1651	B C 4C
C1652	B C 4C
C1653	B C 5C
C1654	B C 5C
C1655	A D 5C
C1656	B C 5C
C1657	B C 9B
C1658	A D 9B
C1659	B C 9A
C1660	B C 9A
C1661	B C 9B
C1662	B C 5C
C1663	B C 8B
C1664	B C 8A
CONNECTOR	
CN1601	A D 7E
CN1602	A D 5E
CN1603	A D 4E
DIODE	
D1601	A D 7C
D1602	A D 4E
IC	
IC1601	B C 9C
IC1602	B C 6C
IC1603	B C 7B
IC1604	B C 8C
IC1605	A D 2E
IC1606	B C 3B
IC1607	B C 4B
IC1608	B C 9A
COIL	
L1601	A D 7E
L1602	A D 8A
L1603	A D 5E
L1604	A D 3B
L1605	A D 10A
TRANSISTOR	
Q1601	B C 8D
Q1602	B C 8D
Q1603	B C 9D
Q1604	B C 9D
Q1605	B C 9D
Q1606	A D 4E
Q1607	B C 3C
Q1608	B C 3C
Q1609	B C 3D
Q1610	B C 2C
Q1611	B C 3C
Q1612	B C 2D
Q1613	B C 5C
Q1614	B C 5C
Q1615	B C 5D
Q1616	B C 5C
Q1617	B C 5D
Q1618	B C 8A
Q1619	B C 6D
RESISTOR	
R1601	B C 8D
R1602	B C 8D
R1603	B C 8D
R1604	B C 8D
R1605	B C 9D
R1606	B C 8D
R1607	B C 9D
R1608	B C 9D
R1609	B C 9D
R1610	B C 9D
R1611	B C 10D
R1612	B C 9D
R1615	B C 9C
R1616	B C 9C
R1617	B C 10C
R1618	B C 10C
R1619	B C 10C
R1620	B C 9C
R1621	A D 7C
R1622	A D 7C
R1623	B C 7C
R1624	B C 7B
R1631	B C 4E
R1632	B C 4E
R1633	B C 3E
R1634	B C 3E
R1635	B C 3C
R1636	B C 3D
R1637	B C 3C
R1638	B C 3C
R1639	B C 4C
R1640	B C 3C
R1641	B C 2C
R1642	B C 2D
R1643	B C 3C
R1644	B C 3D
R1645	B C 5C
R1646	B C 5D
R1647	B C 5D
R1648	B C 5C
R1649	B C 4B
R1650	B C 4D
R1651	B C 5D
R1652	B C 4D
R1653	B C 5C
R1654	B C 6D
R1655	B C 5C
R1656	B C 5D
R1657	B C 5C
R1658	B C 5D
R1659	B C 5C
R1660	B C 5D
R1661	B C 5D
R1662	B C 8A
R1663	B C 8B
R1664	B C 8B
OTHER	
FL1601	A D 9D
FL1602	A D 10E
VR1601	A D 3D
VR1602	A D 3D
VR1603	A D 4D
X1601	A D 4C
X1602	A D 9B

SECTION 5
PARTS LIST

5.1 EXPLODED VIEW

SAFETY PRECAUTION

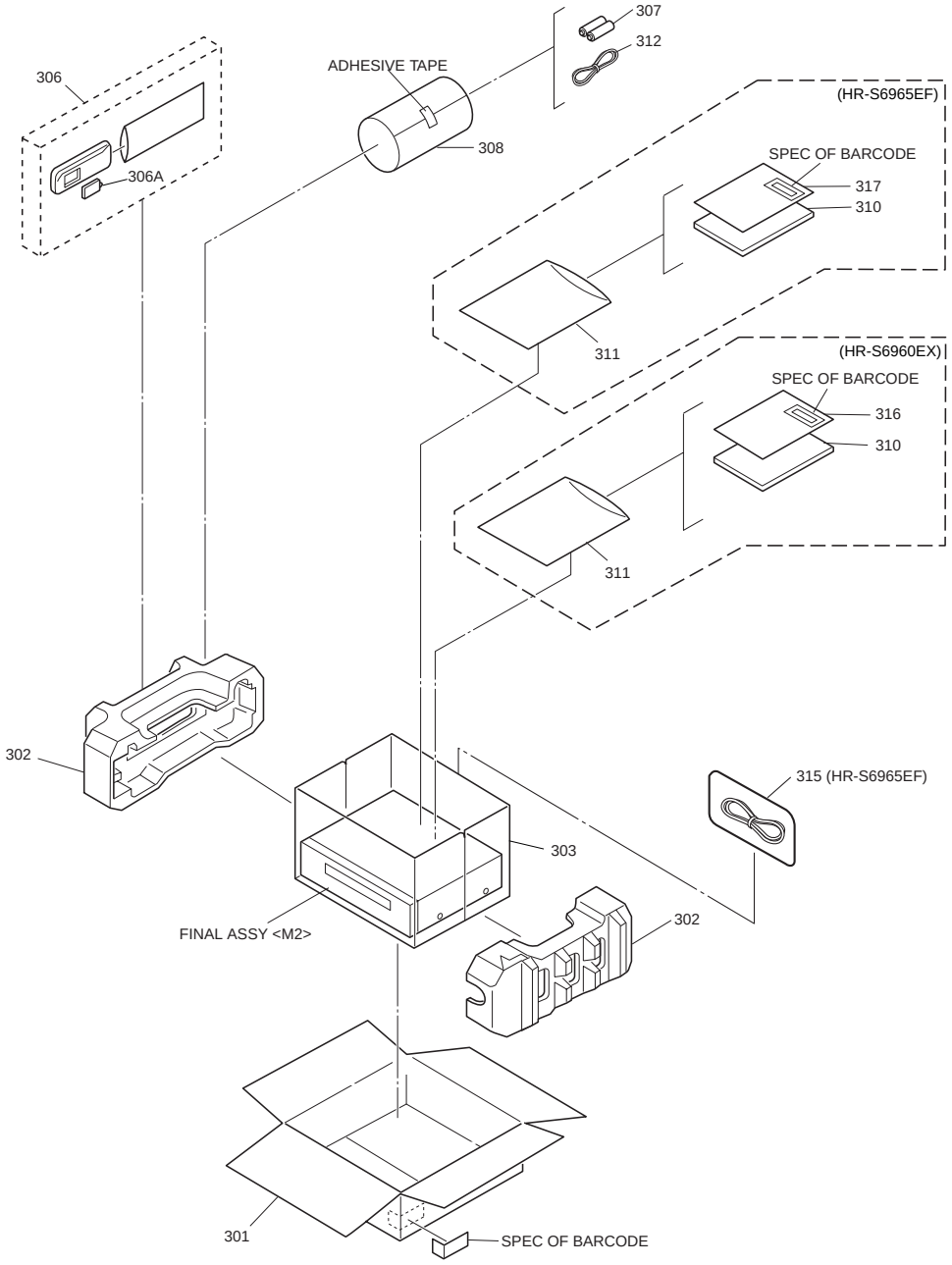
Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

5.1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

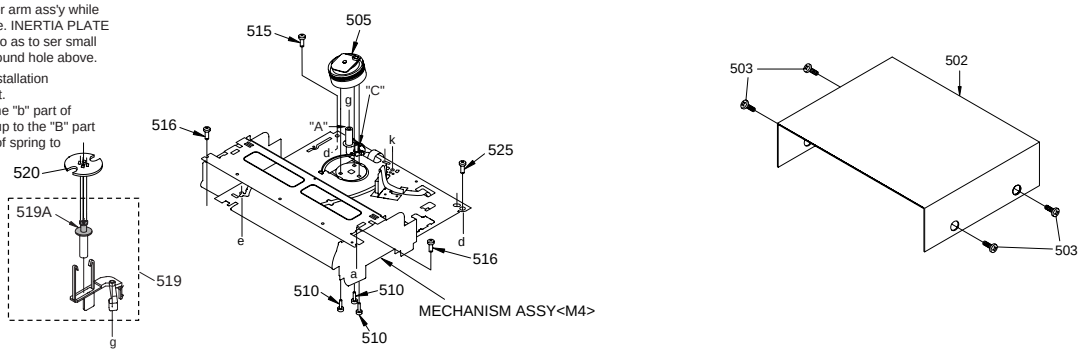
The instruction manual to be provided with this product will differ according to the destination.

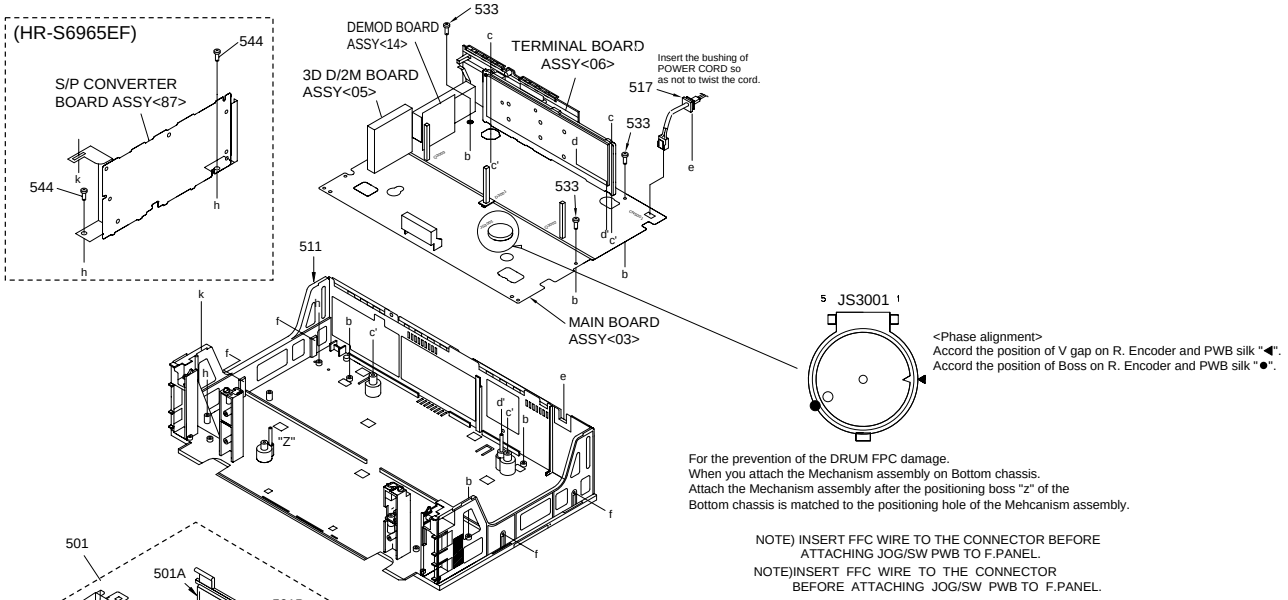


5.1.2 FINAL ASSEMBLY <M2>

Hold ▭ part of roller arm ass'y while attaching inertia plate. INERTIA PLATE should be attached so as to ser small diameter of central round hole above.

1. Position roller's installation hole in the "A" part.
2. Insert roller until the "b" part of roller's hook lock up to the "B" part
3. Hitch the "c" part of spring to the "C" part.



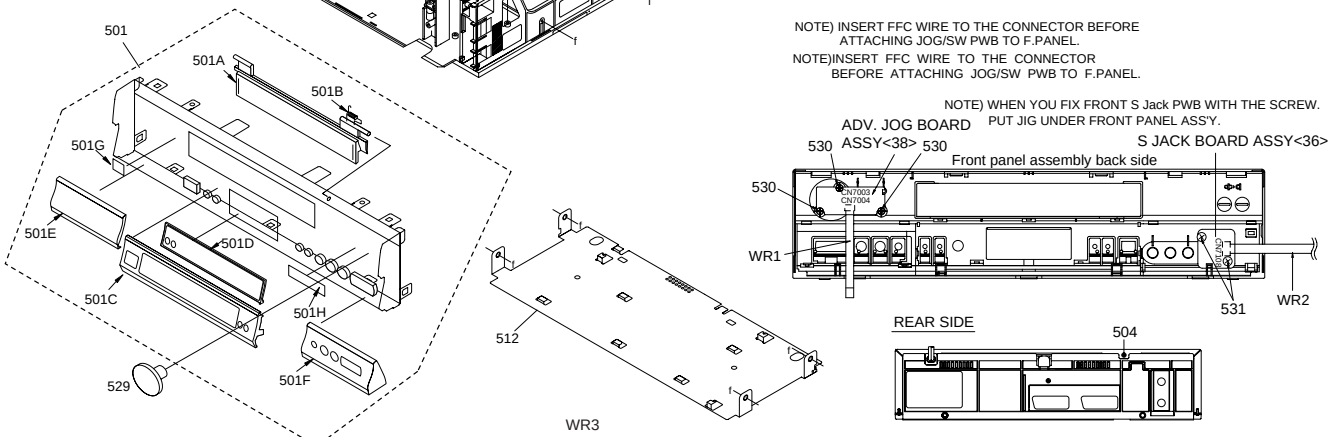


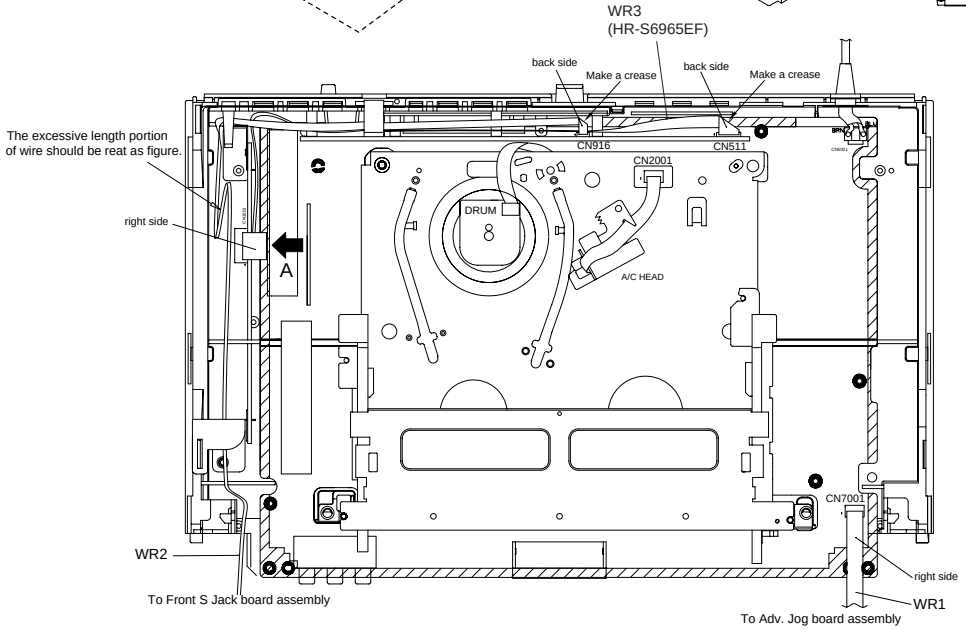
<Phase alignment>
Accord the position of V gap on R. Encoder and PWB silk "◀".
Accord the position of Boss on R. Encoder and PWB silk "●".

For the prevention of the DRUM FPC damage.
When you attach the Mechanism assembly on Bottom chassis.
Attach the Mechanism assembly after the positioning boss "z" of the Bottom chassis is matched to the positioning hole of the Mehcanism assembly.

NOTE) INSERT FFC WIRE TO THE CONNECTOR BEFORE ATTACHING JOG/SW PWB TO F.PANEL.

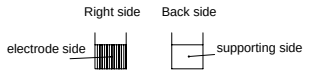
NOTE)INSERT FFC WIRE TO THE CONNECTOR BEFORE ATTACHING JOG/SW PWB TO F.PANEL.



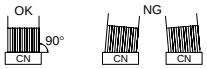


NOTE

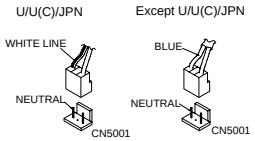
1. Insert direction of FFC WIRE as follows.



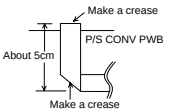
2. FFC WIRE and DRUM FPC WIRE should be insert as follows.



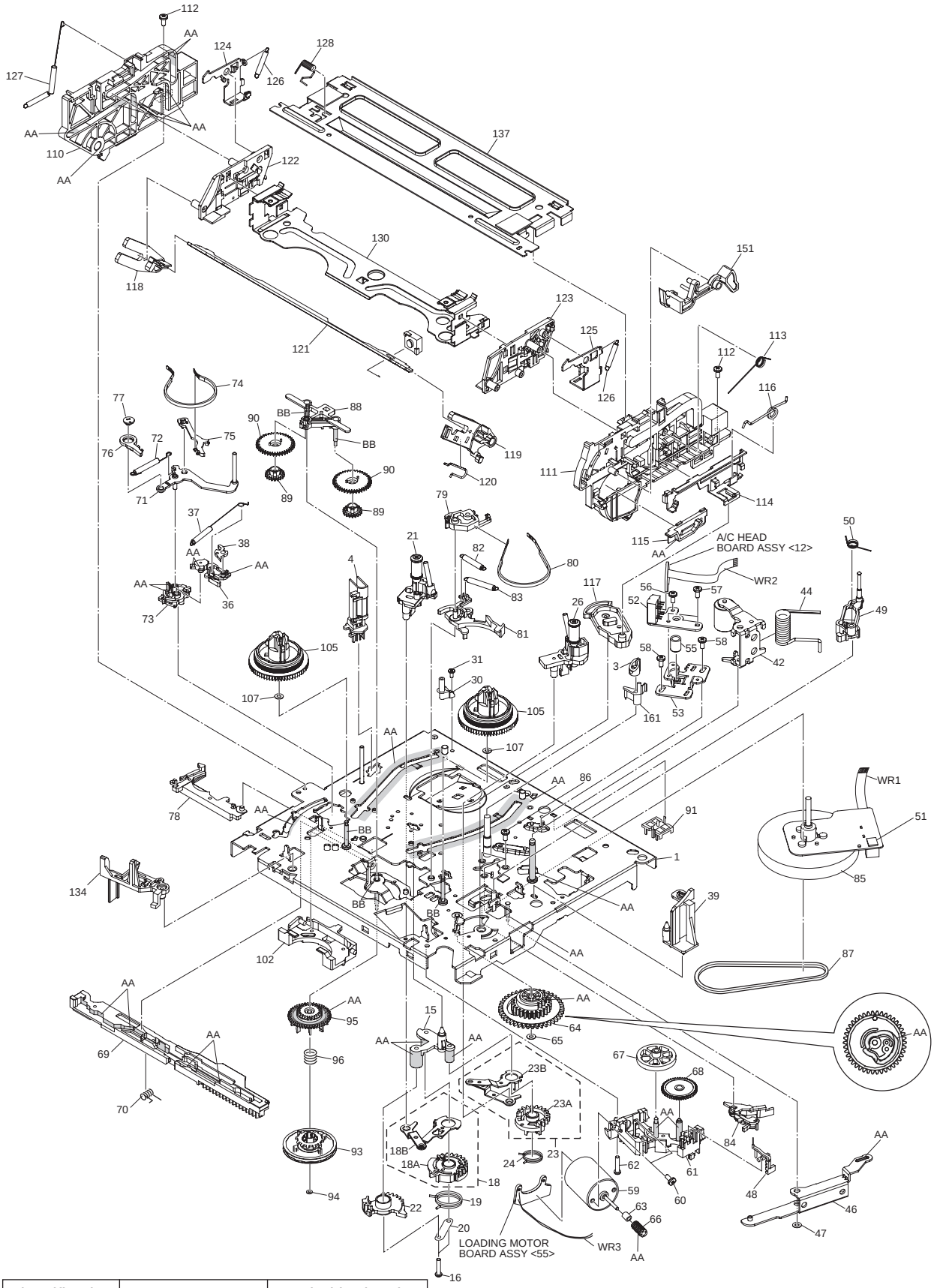
3. Insert direction of POWER CORD.



DETAIL "A"



5.1.3 MECHANISM ASSEMBLY <M4>



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

5.2 PARTS LIST

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION	A	B
**********				
		PACKING AND ACCESSORY ASSEMBLY <M1>		
301	LP30855-004B	PACKING CASE	A	B
302	LP31187-001A	CUSHION ASSY	A	B
303	PQM30021-093	POLY BAG	A	B
306	LP20878-016A	REMOTE CTL UNIT	A	B
306A	LP40610-003A	COVER(BATTERY)	A	B
307	———	BATTERY,X2	A	B
308	QPC02202230P	POLY BAG,CABLE	A	B
⚠ 310	LPT0752-001A	INST.BOOK(ENGLISH),FOR EX	A	
⚠ 310	LPT0752-002A	INST.BOOK(GERMANY),FOR EX&EY	A	
⚠ 310	LPT0752-003A	INST.BOOK(FRENCH),FOR EX	A	
⚠ 310	LPT0752-004A	INST.BOOK(DUTCH),FOR EX	A	
⚠ 310	LPT0752-005A	INST.BOOK(SPANISH),FOR EX	A	
⚠ 310	LPT0752-006A	INST.BOOK(ITALIAN),FOR EX	A	
⚠ 310	LPT0752-007A	INST.BOOK(DANISH),FOR EY	A	
⚠ 310	LPT0752-008A	INST.BOOK(FINNISH),FOR EY	A	
⚠ 310	LPT0752-009A	INST.BOOK(SWEDISH),FOR EY	A	
⚠ 310	LPT0752-010A	INST.BOOK(NORWEGIAN),FOR EY	A	
⚠ 310	LPT0752-011A	INST.BOOK(PORTGUESE),FOR EX	A	
⚠ 310	LPT0752-012A	INST.BOOK(GREEK),FOR EX	A	
⚠ 310	LPT0752-013A	INST.BOOK(CZECH),FOR EZ	A	
⚠ 310	LPT0752-014A	INST.BOOK(POLISH),FOR EZ	A	
⚠ 310	LPT0752-015A	INST.BOOK(HUNGARIAN),FOR EZ	A	
⚠ 310	LPT0774-001A	INST.BOOK(FRENCH)		B
311	QPC02503530P	POLY BAG,INST	A	B
312	PEAC0300-02	RF CABLE	A	B
315	QAM0238-003	PERI CABLE		B
316	BT-54013-6	WARRANTY CARD	A	
317	BT-54008-5	GUARANTY CARD		B
**********				
		FINAL ASSEMBLY <M2>		
⚠ 501	LP10452-026C	F.PANEL ASSY	A	
⚠ 501	LP10452-030C	F.PANEL ASSY		B
501A	LP21123-012B	CASSETTE DOOR	A	B
501B	PQ46448	TOR.SPRING	A	B
501C	LP21127-011B	COVER(WINDOW)	A	B
501D	LP31188-016A	WINDOW(1)	A	
501D	LP31188-009A	WINDOW(1)		B
501E	LP31142-012B	DOOR(JACK)	A	
501E	LP31142-016B	DOOR(JACK)		B
501F	LP30877-006A	COVER(R)	A	B
501G	LP41035-002A	STICKER	A	B
501H	LP41035-008A	STICKER	A	B
⚠ 502	LP10013-051C	TOP COVER	A	B
503	QYTDSF3010R	TAP SCREW,X4,SIDE	A	B
504	QYTDSF3010M	TAP SCREW,REAR	A	B
505	PDV2544A	DRUM FINAL ASSY	A	B
510	QYSPSPD3008Z	SCREW,X3,DRUM	A	B
⚠ 511	LP10108-016H	BOTTOM CHASSIS	A	
⚠ 511	LP10108-016G	BOTTOM CHASSIS		B
⚠ 512	LP10014-002C	BOTTOM COVER	A	B
515	QYTDSF4012Z	TAP SCREW,FOR MECHA	A	B
516	QYSPSFG3010Z	TAP SCREW,X2,FOR MECHA	A	B
⚠ 517	QMP4A10-170	POWER CORD	A	B
519	LP40370-001F	ROLLER ARM ASSY	A	B
519A	PDM4311A-1	ROLLER ASS'Y	A	B
520	PQ45160	INERTIA PLATE	A	B
525	LP40700-001A	SPECIAL SCREW,FOR MECHA	A	B
529	LP30875-001B	KNOB(ADV.JOG)	A	B
530	QYTPSFG2608Z	TAP SCREW,X3,FOR A/J	A	B
531	QYTDSF2608Z	TAP SCREW,X2,FOR S-JACK	A	B
533	DPSF3010Z	SCREW,X3,MAIN	A	B
544	QYTDSF3008Z	TAP SCREW,X2,S-P CONV.		B
WR1	QUQ212-0414CG	FFC WIRE,A.JOG(FSA)	A	B
WR2	QUQ212-0456CG	FFC WIRE,S.JAC(FSA)	A	B
WR3	QUQ112-1140CG	FFC WIRE,S/P CONV.		B
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		MECHANISM ASSEMBLY <M4>		
1	LP21039-001U	MAIN DECK ASSY	A	B
3	LP40097-002E	GUIDE POLE CAP	A	B
4	QAH0082-001	FULL ERASE HEAD	A	B
15	LP30958-001B	LOAD.GEAR BASE	A	B
16	QYTPST2620Z	TAP SCREW,X2,L.G.BASE	A	B
18	LP40798-001A	LOAD.GEAR(SUPPLY) ASSY	A	B
18A	LP21040-001A	LOAD.GEAR(SUPPLY)	A	B
18B	LP40799-001A	LOAD.ARM(SUPPLY) ASSY	A	B
19	LP40837-001A	TORSION SPRING(S),L.GEAR(S)	A	B
20	LP40903-002B	FIXING PLATE	A	B
21	LP40806-001D	POLE BASE ASSY(SUPPLY)	A	B
22	LP30959-002B	LOAD GEAR	A	B
23	LP40802-001C	LOAD.GEAR(TAKE UP) ASSY	A	B
23A	LP21041-001D	LOAD.GEAR(TAKE UP)	A	B
23B	LP40803-001A	LOAD.ARM(TAKE UP) ASSY	A	B
24	LP40838-001A	TORSION SPRING(T),L.GEAR(T)	A	B
26	LP40808-001E	POLE BASE ASSY(TAKE UP)	A	B
30	LP31020-004B	ARM BASE	A	B
31	QYTDST2606Z	TAP SCREW	A	B
36	LP21055-001F	TU LEVER	A	B
37	LP40943-001A	TENSION SPRING	A	B
38	LP40859-001D	T-UP HEAD	A	B
39	LP30961-001C	LID GUIDE	A	B
42	LP40810-001B	PINCH ROLLER ARM ASSY	A	B
44	LP40840-001D	TORSION SPRING,P.ROLLER	A	B
46	LP30963-001B	PRESS LEVER	A	B
47	PQM30017-24	SLIT WASHER,P.LEVER	A	B
48	LP40930-002E	S-SWITCH	A	B
49	LP40813-001D	GUIDE ARM ASSY	A	B
50	LP40841-001A	TORSION SPRING,G.ARM	A	B
51	LP30002-090A	SPACER,CAPSTAN MOTOR	A	B
52	QAH0081-001	AC HEAD	A	B
53	LP30965-001A	HEAD BASE	A	B
55	LP40842-001D	COMPRESSION SPRING	A	B
56	QYTDST2006M	TAP SCREW,A/C HEAD	A	B
57	LP41036-001A	A/C ADJ.SCREW,X2,A/C HEAD	A	B
58	QYTDST2606Z	TAP SCREW,X2,A/C HEAD	A	B
59	QAR0023-001	LOADING MOTOR	A	B
60	QYTPSP3003Z	SCREW,X2,L.MOTOR	A	B
61	LP21056-002J	MOTOR BRACKET	A	B
62	QYTPST2620Z	TAP SCREW,M.BKT	A	B
63	LP40814-001B	WORM BEARING	A	B
64	LP21044-001E	CONTROL CAM	A	B
65	PQM30017-24	SLIT WASHER,CTL.CAM	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	A	B
	66	LP40815-001A	WORM GEAR	A	B
	67	LP40816-001B	HELICAL GEAR,M.BKT	A	B
	68	LP40817-001A	CONNECT GEAR	A	B
	69	LP10400-001J	CONTROL PLATE	A	B
	70	LP40843-001A	TORSION SPRING	A	B
	71	LP40818-001B	TENSION ARM ASSY	A	B
	72	LP40844-001E	TENSION SPRING,T.ARM	A	B
	73	LP21045-001D	TENSION ARM BASE	A	B
	74	LP40821-001A	TENSION BAND ASSY	A	B
	75	LP30967-001B	BAND HOLDER-1	A	B
	76	LP30968-001C	BAND HOLDER-2	A	B
	77	LP40822-002B	ADJUST PIN	A	B
	78	LP31000-005E	TENSION ARM LEVER	A	B
	79	LP21046-001C	MAIN BRAKE(TAKE UP)	A	B
	80	LP40824-001A	BAND BRAKE ASSY	A	B
	81	LP30969-002B	BRAKE LEVER	A	B
	82	LP30003-033B	TENSION SPRING,BRK LEVER	A	B
	83	LP30003-035B	TENSION SPRING,BRK LEVER	A	B
	84	LP40825-001B	CAPSTAN BRAKE ASSY	A	B
⚠	85	QAR0224-002	CAPSTAN MOTOR	A	B
	86	QYTPSG2606Z	TAP SCREW,X3,CAP.MOTOR	A	B
	87	LP30005-010A	BELT,CAPSTAN MOTOR	A	B
	88	LP30970-001A	IDLER ARM	A	B
	89	LP40828-004A	IDLER GEAR 1,X2	A	B
	90	LP40829-001B	IDLER GEAR 2,X2	A	B
	91	LP31014-001A	WIRE HOLDER	A	B
	93	LP40934-001B	CLUTCH UNIT	A	B
	94	PQM30017-47	SLIT WASHER,CLUT.UNIT	A	B
	95	LP30973-001A	DIRECT GEAR	A	B
	96	LP40939-001A	COMPRESION SPRING,DIR.GEAR	A	B
	102	LP30974-001C	CHANGE LEVER	A	B
	105	LP21049-001A	REEL DISK,X2	A	B
	107	LP30017-004A	SPACER,X2,REEL DISK	A	B
	110	LP10401-001H	SIDE FRAME(L)	A	B
	111	LP10402-001K	SIDE FRAME(R)	A	B
	112	QYTDST2606Z	TAP SCREW,X2,FOR MECHA	A	B
	113	LP40917-001D	TORSION SPRING,FOR DUMP.	A	B
	114	LP30976-001E	SIDE PLATE	A	B
	115	LP30977-002D	LIMIT PLATE	A	B
	116	LP40846-001C	LIMIT SPRING,SIDE PLATE	A	B
	117	LP31100-001B	DRIVE LEVER	A	B
	118	LP30978-001B	DRIVE ARM(L)	A	B
	119	LP30979-001P	DRIVE ARM(R)	A	B
	120	LP40847-001B	TORSION SPRING,D.ARM(R)	A	B
	121	LP30980-001E	CONNECT PLATE	A	B
	122	LP10403-001C	SIDE HOLDER(L)	A	B
	123	LP10404-001E	SIDE HOLDER(R)	A	B
	124	LP30983-001B	LOCK LEVER(L)	A	B
	125	LP30984-001B	LOCK LEVER(R)	A	B
	126	LP40924-001D	TENSION SPRING,X2,L.LEVER	A	B
	127	LP40972-001A	EARTH SPRING(1)	A	B
	128	LP40857-001B	EARTH SPRING(2),TOP FRAME	A	B
	130	LP30981-001G	CASSETTE HOLDER ASSY	A	B
	134	LP21051-002C	REC SAFETY LEVER	A	B
	137	LP21052-001J	TOP FRAME	A	B
	151	LP30985-001G	DOOR OPENER,SIDE FRM(R)	A	B
	161	LP40993-001A	TAPE GUIDE	A	B
	WR1	WJT0059-001D	E-CARD WIRE,CAP MOTOR	A	B
	WR2	WJT0067-001B	E-CARD WIRE,A/C HEAD	A	B
	WR3	WJS0022-001A	E-FL/RB WIRE,L.MOTOR	A	B

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MAIN BOARD ASSEMBLY <03>

PW1 MAIN BOARD ASS'Y<03> includes the parts shown in the following.
PW1 2D DIGITAL BOARD ASS'Y<05>
PW1 TERMINAL BOARD ASS'Y<06>
PW1 DEMOD BOARD ASS'Y<14>

#⚠	REF No.	PART No.	PART NAME, DESCRIPTION	A	B
	PW1	LPA10170-10B	MAIN BOARD ASSY,HR-S6960EX	A	
	PW1	LPA10170-13B	MAIN BOARD ASSY,HR-S6965EF		B
	IC1	JCP8051-MSA	IC,VIDEO	A	B
	IC201	LC74776-9791	IC	A	B
	IC301	LA7358	IC		B
	IC2201	AN3651FBP	IC	A	B
	IC3001	HD6432194SBD35F	IC(MCU),MAIN CPU	A	
	IC3001	HD6432194SAD36F	IC(MCU),MAIN CPU		B
	IC3001 or	HD64F2194CFD35	IC(MCU),MAIN CPU	A	
	IC3001 or	HD64F2194CFD36	IC(MCU),MAIN CPU		B
	IC3002	IC-PST3427U-X	IC,RESET	A	B
	IC3003	*(REFER TO BELOW)	IC,EEPROM(32K)	A	B
	IC7002	GP1UM291QK	IR DETECT UNIT	A	B
	Q1	2SC4081/QRS/-X	TRANSISTOR,SP1 SHORT	A	B
	Q1 or	2PC4081/R/-X	TRANSISTOR	A	B
	Q2	2SC4081/QRS/-X	TRANSISTOR,SP2 SHORT	A	B
	Q2 or	2PC4081/R/-X	TRANSISTOR	A	B
	Q3	2SC4081/QRS/-X	TRANSISTOR,EP1 SHORT	A	B
	Q3 or	2PC4081/R/-X	TRANSISTOR	A	B
	Q4	2SC4081/QRS/-X	TRANSISTOR,EP2 SHORT	A	B
	Q4 or	2PC4081/R/-X	TRANSISTOR	A	B
	Q7	2SC4081/QRS/-X	TRANSISTOR,RF EQ(S)	A	B
	Q7 or	2PC4081/R/-X	TRANSISTOR	A	B
	Q8	2SC4081/QRS/-X	TRANSISTOR,RF EQ(S)	A	B
	Q8 or	2PC4081/R/-X	TRANSISTOR	A	B
	Q9	2SA1576A/QR/-X	TRANSISTOR,RF EQ(S)	A	B
	Q9 or	2PA1576/R/-X	TRANSISTOR	A	B
	Q10	2SA1576A/QR/-X	TRANSISTOR,FSC BUF	A	B
	Q10 or	2PA1576/R/-X	TRANSISTOR	A	B
	Q11	DTC144WUA-X	DIGI TRANSISTOR,R-Y REV	A	B
	Q11 or	UN521E-X	DIGI TRANSISTOR	A	B
	Q11 or	RN1309-X	DIGI TRANSISTOR	A	B
	Q11 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
	Q14	2SA1576A/QR/-X	TRANSISTOR,SECAM REC		B
	Q14 or	2PA1576/R/-X	TRANSISTOR,S		B
	Q14 or	2SB1218A/QR/-X	TRANSISTOR,S		B
	Q16	DTC144WUA-X	DIGI TRANSISTOR,DEMP(SP/EP	A	B
	Q16 or	UN521E-X	DIGI TRANSISTOR	A	B
	Q16 or	RN1309-X	DIGI TRANSISTOR	A	B
	Q16 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
	Q18	DTC144WUA-X	DIGI TRANSISTOR,SECAM		B
	Q18 or	UN521E-X	DIGI TRANSISTOR		B
	Q18 or	RN1309-X	DIGI TRANSISTOR		B
	Q18 or	PDTC144WU-X	DIGI TRANSISTOR		B
	Q19	DTC144WUA-X	DIGI TRANSISTOR,SECAM		B
	Q19 or	UN521E-X	DIGI TRANSISTOR		B
	Q19 or	RN1309-X	DIGI TRANSISTOR		B
	Q19 or	PDTC144WU-X	DIGI TRANSISTOR		B
	Q21	2SA1576A/QR/-X	TRANSISTOR,PB C BUF	A	B
	Q21 or	2PA1576/R/-X	TRANSISTOR	A	B
	Q24	2SA1576A/QR/-X	TRANSISTOR,2FSC BUF	A	B
	Q24 or	2PA1576/R/-X	TRANSISTOR	A	B

* S6960EX : LPN0797-003B-01
S6965EF : LPN0798-002B-81

The VCR goes to jig RCU mode after replacing the EEPROM and the VCR does not accept some RCU command.
Therefore please set the VCR to the user RCU mode after replacing the EEPROM.
The method of setting the VCR to the user RCU mode is written on the service manual.

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION	A	B
Q38	2SC4081/QRS/-X	TRANSISTOR,Y BDL	A	B
Q38 or	2PC4081/R/-X	TRANSISTOR	A	B
Q40	DTC144WUA-X	DIGI TRANSISTOR,R-Y REV	A	B
Q40 or	UN521E-X	DIGI TRANSISTOR	A	B
Q40 or	RN1309-X	DIGI TRANSISTOR	A	B
Q40 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q41	DTC144WUA-X	DIGI TRANSISTOR,MESECAM	A	B
Q41 or	UN521E-X	DIGI TRANSISTOR	A	B
Q41 or	RN1309-X	DIGI TRANSISTOR	A	B
Q41 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q50	DTC144WUA-X	DIGI TRANSISTOR,EE(L)	A	B
Q50 or	UN521E-X	DIGI TRANSISTOR	A	B
Q50 or	RN1309-X	DIGI TRANSISTOR	A	B
Q50 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q207	2SA1576A/QR/-X	TRANSISTOR,OSD OUT	A	B
Q207 or	2PA1576/R/-X	TRANSISTOR,OSD OUT	A	B
Q208	2SC4081/QRS/-X	TRANSISTOR,OSD OUT	A	B
Q208 or	2PC4081/R/-X	TRANSISTOR,OSD OUT	A	B
Q301	2SB1218A/QR/-X	TRANSISTOR		B
Q301 or	2SA1576A/QR/-X	TRANSISTOR		B
Q301 or	2PA1576/R/-X	TRANSISTOR		B
Q302	UN511E-X	DIGI TRANSISTOR		B
Q302 or	DTA144WUA-X	DIGI TRANSISTOR		B
Q302 or	RN2309-X	D TRANSISTOR		B
Q302 or	PDTA144WU-X	DIGI TRANSISTOR		B
Q2001	2SC4081/QRS/-X	TRANSISTOR	A	B
Q2001 or	2SD1819A/QRS/-X	TRANSISTOR	A	B
Q2001 or	2PC4081/R/-X	TRANSISTOR	A	B
Q2002	2SC4081/QRS/-X	TRANSISTOR	A	B
Q2002 or	2SD1819A/QRS/-X	TRANSISTOR	A	B
Q2002 or	2PC4081/R/-X	TRANSISTOR	A	B
Q2003	DTA144WUA-X	DIGI TRANSISTOR	A	B
Q2003 or	UN511E-X	DIGI TRANSISTOR	A	B
Q2003 or	RN2309-X	D TRANSISTOR	A	B
Q2003 or	PDTA144WU-X	DIGI TRANSISTOR	A	B
Q2004	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2004 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2004 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2004 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2051	2SC4081/QRS/-X	TRANSISTOR	A	B
Q2051 or	2SD1819A/QRS/-X	TRANSISTOR	A	B
Q2051 or	2PC4081/R/-X	TRANSISTOR	A	B
Q2052	2SA1576A/QR/-X	TRANSISTOR	A	B
Q2052 or	2SB1218A/QR/-X	TRANSISTOR	A	B
Q2052 or	2PA1576/R/-X	TRANSISTOR	A	B
Q2053	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2053 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2053 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2053 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2054	2SA1576A/QR/-X	TRANSISTOR	A	B
Q2054 or	2SB1218A/QR/-X	TRANSISTOR	A	B
Q2054 or	2PA1576/R/-X	TRANSISTOR	A	B
Q2055	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2055 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2055 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2055 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2201	DTA144WUA-X	DIGI TRANSISTOR	A	B
Q2201 or	PDTA144WU-X	DIGI TRANSISTOR	A	B
Q2201 or	UN511E-X	DIGI TRANSISTOR	A	B
Q2201 or	RN2309-X	D TRANSISTOR	A	B
Q2202	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2202 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2202 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2202 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2203	2SC4081/QRS/-X	TRANSISTOR	A	B
Q2203 or	2PC4081/R/-X	TRANSISTOR	A	B
Q2203 or	2SD1819A/QRS/-X	TRANSISTOR	A	B
Q2204	2SC4081/QRS/-X	TRANSISTOR	A	B
Q2204 or	2PC4081/R/-X	TRANSISTOR	A	B
Q2204 or	2SD1819A/QRS/-X	TRANSISTOR	A	B
Q2251	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2251 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2251 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2251 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2252	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2252 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2252 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2252 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2253	DTC144WUA-X	DIGI TRANSISTOR	A	B
Q2253 or	PDTC144WU-X	DIGI TRANSISTOR	A	B
Q2253 or	UN521E-X	DIGI TRANSISTOR	A	B
Q2253 or	RN1309-X	DIGI TRANSISTOR	A	B
Q2254	DTC114EUA-X	DIGI TRANSISTOR	A	B
Q2254 or	PDTC114EU-X	DIGI TRANSISTOR	A	B
Q2254 or	UN5211-X	DIGI TRANSISTOR	A	B
Q2254 or	RN1302-X	DIGI TRANSISTOR	A	B
Q2255	DTC114EUA-X	DIGI TRANSISTOR	A	B
Q2255 or	PDTC114EU-X	DIGI TRANSISTOR	A	B
Q2255 or	UN5211-X	DIGI TRANSISTOR	A	B
Q2255 or	RN1302-X	DIGI TRANSISTOR	A	B
Q3002	PTZ-NV16A	IC(PHOTO SENSOR),STA.SENSOR	A	B
Q3003	PTZ-NV16A	IC(PHOTO SENSOR),END SENSOR	A	B
Q3004	2SD1819A/QRS/-X	TRANSISTOR,POWER DET	A	B
Q3004 or	2SC4081/QRS/-X	TRANSISTOR,POWER DET	A	B
Q3004 or	2PC4081/R/-X	TRANSISTOR,POWER DET	A	B
Q3005	2SD1819A/QRS/-X	TRANSISTOR,SVCC	A	B
Q3005 or	2SC4081/QRS/-X	TRANSISTOR,SVCC	A	B
Q3005 or	2PC4081/R/-X	TRANSISTOR,SVCC	A	B
Q3007	UN521E-X	DIGI TRANSISTOR,P50	A	B
Q3007 or	DTC144WUA-X	DIGI TRANSISTOR,P50	A	B
Q3007 or	PDTC144WU-X	DIGI TRANSISTOR,P50	A	B
Q3007 or	RN1309-X	DIGI TRANSISTOR,P50	A	B
Q4001	UN5211-X	DIGI TRANSISTOR	A	B
Q4001 or	DTC114EUA-X	DIGI TRANSISTOR	A	B
Q4001 or	RN1302-X	DIGI TRANSISTOR	A	B
Q4001 or	PDTC114EU-X	DIGI TRANSISTOR	A	B
Q5101	2SK2632-CB14	POWER MOS FET	A	B
Q5101 or	2SK2129-LT	POWER MOS FET	A	B
Q5101 or	2SK2632	POWER MOS FET	A	B
Q5101 or	2SK2129	POWER MOS FET	A	B
Q5102	2SD2144S/UV/-T	TRANSISTOR	A	B
Q5301	2SC1740S/RS/-T	TRANSISTOR	A	B
Q5301 or	2SC3199/YG/-T	TRANSISTOR	A	B
Q5303	2SC5739/QP/	POW TRANSISTOR,SW5V	A	B
Q5304	2SD2144S/UV/-T	TRANSISTOR,SW12V	A	B
Q5305	DTA114EUA-X	DIGI TRANSISTOR,SW12V	A	B
Q5305 or	UN5111-X	DIGI TRANSISTOR,SW12V	A	B
Q5305 or	RN2302-X	D TRANSISTOR,SW12V	A	B
Q5305 or	PDTA114EU-X	DIGI TRANSISTOR,SW12V	A	B
Q5306	DTC114EUA-X	DIGI TRANSISTOR,SW12V	A	B
Q5306 or	UN5211-X	DIGI TRANSISTOR,SW12V	A	B
Q5306 or	RN1302-X	DIGI TRANSISTOR,SW12V	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
Q5306 or	PDTC114EU-X	DIGI TRANSISTOR,SW12V		A	B
Q5307	2SD2144S/UV/-T	TRANSISTOR,RF5V		A	B
Q6030	2SB1218A/QR/-X	TRANSISTOR,V BUFF		A	B
Q6030 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q6030 or	2PA1576/R/-X	TRANSISTOR		A	B
Q6031	DTC114EUA-X	DIGI TRANSISTOR		A	B
Q6031 or	UN5211-X	DIGI TRANSISTOR		A	B
Q6031 or	RN1302-X	DIGI TRANSISTOR		A	B
Q6031 or	PDTC114EU-X	DIGI TRANSISTOR		A	B
Q6032	DTC114EUA-X	DIGI TRANSISTOR		A	B
Q6032 or	UN5211-X	DIGI TRANSISTOR		A	B
Q6032 or	RN1302-X	DIGI TRANSISTOR		A	B
Q6032 or	PDTC114EU-X	DIGI TRANSISTOR		A	B
Q7001	2SB1218A/QR/-X	TRANSISTOR		A	B
Q7001 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7001 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7002	2SB1218A/QR/-X	TRANSISTOR		A	B
Q7002 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7002 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7003	2SB1218A/QR/-X	TRANSISTOR		A	B
Q7003 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7003 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7004	2SB1218A/QR/-X	TRANSISTOR		A	B
Q7004 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7004 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7005	2SB1218A/QR/-X	TRANSISTOR		A	B
Q7005 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7005 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7006	2SB1218A/QR/-X	TRANSISTOR,V15 7SEG		A	B
Q7006 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7006 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7007	2SB1218A/QR/-X	TRANSISTOR,V15 7SEG		A	B
Q7007 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q7007 or	2PA1576/R/-X	TRANSISTOR		A	B
Q7008	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7008 or	UN5216-X	D TRANSISTOR		A	B
Q7009	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7009 or	UN5216-X	D TRANSISTOR		A	B
Q7010	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7010 or	UN5216-X	D TRANSISTOR		A	B
Q7011	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7011 or	UN5216-X	D TRANSISTOR		A	B
Q7012	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7012 or	UN5216-X	D TRANSISTOR		A	B
Q7013	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7013 or	UN5216-X	D TRANSISTOR		A	B
Q7014	DTC143TUA-X	DIGI TRANSISTOR		A	B
Q7014 or	UN5216-X	D TRANSISTOR		A	B
Q7201	2SC1317/RS/-T	TRANSISTOR		A	B
D1	QUY153-050Y	IM BUS WIRE,ESD		A	B
D201	QRE141J-152Y	C RESISTOR,OSD CS	1.5kΩ,1/4W	A	B
D202	QRE141J-101Y	C RESISTOR,S.CLK	100Ω,1/4W	A	B
D203	QRE141J-101Y	C RESISTOR,S.DATA	100Ω,1/4W	A	B
D2251	1SS133-T2	SI DIODE		A	B
D2251 or	1SS270A-T2	SI DIODE		A	B
D3001	LNB2301L01VI	IR LED,LED		A	B
D3002	1SS133-T2	SI DIODE		A	B
D3002 or	1SS270A-T2	SI DIODE		A	B
D3003	RD39ES/B3/-T2	Z DIODE,POWER DET		A	B
D3003 or	MTZJ39C-T2	Z DIODE,POWER DET		A	B
D3004	11ES2-T2	SI DIODE,BU5V		A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
D3004 or	1A3G-T2	SI DIODE,BU5V		A	B
D3005	11ES2-T2	SI DIODE,AL5V		A	B
D3005 or	1A3G-T2	SI DIODE,AL5V		A	B
D3008	1SS355-X	SI DIODE,P50		A	B
D4001	QUY153-050Y	IM BUS WIRE		A	B
D4002	QUY153-050Y	IM BUS WIRE		A	B
D5001	S1WB/A/60-4102	BRIDGE DIODE		A	B
D5001 or	S1WB/A/60-X	BRIDGE DIODE		A	B
D5001 or	S1WB(A)60F4072X	BRIDGE DIODE		A	B
D5101	AU01-T2	SI DIODE		A	B
D5101 or	1SR153-400-T2	FR DIODE		A	B
D5101 or	ERA18-04-T2	FR DIODE		A	B
D5101 or	10ELS4-T2	FR DIODE		A	B
D5102	AU01-T2	SI DIODE		A	B
D5102 or	1SR153-400-T2	FR DIODE		A	B
D5102 or	ERA18-04-T2	FR DIODE		A	B
D5102 or	10ELS4-T2	FR DIODE		A	B
D5103	1SS133-T2	SI DIODE		A	B
D5103 or	1SS270A-T2	SI DIODE		A	B
D5105	1SS133-T2	SI DIODE		A	B
D5105 or	1SS270A-T2	SI DIODE		A	B
D5203	AU01Z-T2	FR DIODE		A	B
D5203 or	10ELS2-T2	FR DIODE		A	B
D5204	AU01Z-T2	FR DIODE		A	B
D5204 or	10ELS2-T2	FR DIODE		A	B
D5207	AK04-T2	SB DIODE,6V		A	B
D5207 or	11EQS04-T2	SB DIODE,6V		A	B
D5207 or	1S4-T2	SB DIODE,6V		A	B
D5207 or	SBO40-T2	SB DIODE,6V		A	B
D5209	AK04-T2	SB DIODE,6V		A	B
D5209 or	11EQS04-T2	SB DIODE,6V		A	B
D5209 or	1S4-T2	SB DIODE,6V		A	B
D5209 or	SBO40-T2	SB DIODE,6V		A	B
D5210	AU01Z-T2	FR DIODE,BT2		A	B
D5210 or	ERA18-02-T2	FR DIODE,BT2		A	B
D5210 or	1SR153-400-T2	FR DIODE,BT2		A	B
D5210 or	10ELS2-T2	FR DIODE,BT2		A	B
D5210 or	PG104RS-T2	FR DIODE,BT2		A	B
D5301	MTZJ15C-T2	Z DIODE		A	B
D5301 or	RD15ES/B3/-T2	Z DIODE		A	B
D5302	MTZJ11C-T2	Z DIODE,SW12V		A	B
D5302 or	RD11ES/B3/-T2	Z DIODE,SW12V		A	B
D5303	MTZJ5.6A-T2	Z DIODE		A	B
D5303 or	RD5.6ES/B1/-T2	Z DIODE		A	B
D5305	MTZJ5.6C-T2	Z DIODE,SW5V		A	B
D5305 or	RD5.6ES/B3/-T2	Z DIODE,SW5V		A	B
D6002	HZ30-2L-T2	Z.DIODE		A	B
D6002 or	HZ30-2LTD	Z DIODE (M)		A	B
D7051	1SS133-T2	SI DIODE,ESD		A	B
D7051 or	1SS270A-T2	SI DIODE,ESD		A	B
R1	NRSA02J-622X	MG RESISTOR	6.2kΩ,1/10W	A	B
R2	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A	B
R3	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	B
R5	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R6	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A	B
R7	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B
R10	QRE141J-103Y	C RESISTOR	10kΩ,1/4W	A	B
R21	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R22	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R23	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W		B
R25	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
R26	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R27	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R28	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R29	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A	B
R30	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W		B
R31	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A	B
R32	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R35	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	B
R36	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	B
R38	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A	B
R40	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R41	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A	B
R42	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B
R43	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R46	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R48	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R51	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	B
R52	NQR0360-003X	FERRITE BEADS		A	B
R65	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R68	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W		B
R76	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W		B
R77	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W	A	B
R78	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R84	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R88	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R90	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A	B
R93	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B
R104	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R118	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R201	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R202	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R208	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B
R209	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R210	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	B
R211	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
R212	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R213	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R216	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R224	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R225	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R226	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R301	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W		B
R302	NRSA02J-124X	MG RESISTOR	120kΩ,1/10W		B
R303	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W		B
R304	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W		B
R305	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W		B
R306	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W		B
R307	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W		B
R308	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W		B
R309	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
R310	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W		B
R311	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W		B
R312	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W		B
R313	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W		B
R314	NRVA02D-243X	CMF RESISTOR	24kΩ,1/10W		B
R315	NRSA02J-564X	MG RESISTOR	560kΩ,1/10W		B
R316	NRSA02J-124X	MG RESISTOR	120kΩ,1/10W		B
R318	NRSA02J-821X	MG RESISTOR	820Ω,1/10W		B
R329	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
R2003	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R2005	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A	B
R2007	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R2008	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R2010	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A	B
R2013	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2014	NRSA02J-224X	MG RESISTOR	220kΩ,1/10W	A	B
R2015	NRSA02J-181X	MG RESISTOR	180Ω,1/10W	A	B
R2016	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A	B
R2017	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R2018	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2019	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2020	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2041	QRE141J-0R0	C RESISTOR	0Ω,1/4W	A	B
R2053	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A	B
R2054	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A	B
R2055	NRSA02J-3R3X	MG RESISTOR	3.3Ω,1/10W	A	B
R2056	QRE141J-820Y	C RESISTOR	82Ω,1/4W	A	B
R2057	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2058	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R2059	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2060	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R2201	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2202	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2203	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2204	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2205	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2206	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2207	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2208	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2209	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B
R2210	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2211	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R2212	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R2213	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2214	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B
R2215	NRSA02J-181X	MG RESISTOR	180Ω,1/10W	A	B
R2216	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	
R2217	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	
R2218	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B
R2219	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	B
R2220	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R2222	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2223	NRSA02J-511X	MG RESISTOR	510Ω,1/10W	A	B
R2224	NRSA02J-511X	MG RESISTOR	510Ω,1/10W	A	B
R2225	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2226	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A	B
R2227	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A	B
R2228	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A	B
R2229	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A	B
R2230	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2231	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2232	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B
R2233	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R2234	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R2235	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B
R2236	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R2237	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B
R2238	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R2251	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R2252	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R2253	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R2254	QRE141J-103Y	C RESISTOR	10kΩ,1/4W	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
R2255	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A	B
R2256	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B
R3011	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3012	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R3013	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3014	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3015	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3016	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3017	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3018	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R3019	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3020	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3021	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3022	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3025	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3026	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3027	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3029	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3030	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3031	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3033	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3034	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3035	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3036	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3037	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3038	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A	B
R3039	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3040	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3041	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3042	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3044	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3046	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3047	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3048	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3049	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3050	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3051	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3052	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R3053	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R3054	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3055	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3056	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3057	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3058	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3059	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3060	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3061	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3062	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3063	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3066	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3069	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R3071	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3072	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3073	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3074	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3075	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R3076	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R3077	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3078	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3079	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3081	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3085	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3086	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3087	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3088	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3089	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3090	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3091	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3092	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3093	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3094	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3095	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3096	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3097	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3103	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3105	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3106	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R3205	QRE141J-181Y	C RESISTOR	180Ω,1/4W	A	B
R3206	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A	B
R3207	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R3208	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A	B
R3209	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R3210	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A	B
R3211	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A	B
R3212	NRSA02J-474X	MG RESISTOR	470kΩ,1/10W	A	B
R3213	NRSA02J-334X	MG RESISTOR	330kΩ,1/10W	A	B
R3214	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3215	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3216	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3217	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3218	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3219	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3220	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A	B
R3222	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3223	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3224	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3225	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3229	NRSA02J-105X	MG RESISTOR	1MΩ,1/10W	A	B
R3230	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3231	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R3234	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3235	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B
R3236	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B
R3237	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3238	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3241	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R3242	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R3252	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A	B
R3253	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R4003	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A	B
R4004	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A	B
R4005	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
R4007	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R4008	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R4009	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R4010	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R4012	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B
R4013	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R4015	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
R4017	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R5101	QRE141J-224Y	C RESISTOR	220kΩ,1/4W	A	B
R5102	QRE141J-224Y	C RESISTOR	220kΩ,1/4W	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
R5103	QRE141J-683Y	C RESISTOR	68kΩ,1/4W	A	B
R5104	QRG02GJ-683	OMF RESISTOR	68kΩ,2W	A	B
R5106	QRT01DJ-R39X	MF RESISTOR	0.39Ω,1W	A	B
R5107	QRE121J-331Y	C RESISTOR	330Ω,1/2W	A	B
R5108	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A	B
R5109	QRE141J-561Y	C RESISTOR	560Ω,1/4W	A	B
R5110	NRSA02J-224X	MG RESISTOR	220kΩ,1/10W	A	B
R5111	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A	B
R5112	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R5302	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R5303	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	B
R5304	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R5306	NRSA02J-181X	MG RESISTOR	180Ω,1/10W	A	B
R5310	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R5312	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R5313	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R5319	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R5332	QRL02DJ-391X	OMF RESISTOR	390Ω,2W	A	B
R6020	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R6021	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R6030	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R6031	NRSA02J-271X	MG RESISTOR	270Ω,1/10W	A	B
R6032	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	
R6032	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W		B
R6033	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	
R6033	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W		B
R6050	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	
R6051	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	
R6052	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	
R6056	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	
R6080	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R7001	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R7002	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R7003	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R7004	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R7005	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R7006	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R7007	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R7015	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R7020	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R7021	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	B
R7022	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	B
R7023	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B
R7024	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R7025	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R7026	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R7030	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R7031	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	B
R7032	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	B
R7033	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B
R7034	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R7160	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R7161	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R7162	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R7163	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R7202	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R7203	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R7204	QRE121J-100Y	C RESISTOR	10Ω,1/2W	A	B
VR2251	QVP0039-223Z	TRIM RESISTOR		A	B
B5	NRSA02J-0R0X	MG RESISTOR,PB FM BUF	0Ω,1/10W	A	B
B10	NRSA02J-0R0X	MG RESISTOR,C IN(SVHS)	0Ω,1/10W	A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
B12	NRSA02J-0R0X	MG RESISTOR,C.SYNC(D)	0Ω,1/10W	A	B
B65	NRSA02J-0R0X	MG RESISTOR,TITLE REC	0Ω,1/10W	A	B
B203	QUY160-100Y	IM BUS WIRE,I2C CLK2		A	B
B204	QUY160-080Y	IM BUS WIRE,I2C DATA2		A	B
B214	NRSA02J-0R0X	MG RESISTOR,RF VIDEO	0Ω,1/10W	A	B
B302	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
B2051	QUY160-060Y	IM BUS WIRE		A	B
B2221	QUY160-140Y	IM BUS WIRE,AL5V		A	B
B3001	QUY160-060Y	IM BUS WIRE,ICT		A	B
B5001	QUY160-100Y	IM BUS WIRE,OPT:LF5001		A	B
B5002	QUY160-100Y	IM BUS WIRE,OPT:LF5001		A	B
C1	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C3	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C4	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C5	QEKC0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C6	QDYB1CM-103Y	C CAPACITOR	0.01µF,16V	A	B
C7	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B
C8	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C9	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C10	NDC21HJ-151X	C CAPACITOR	150pF,50V	A	B
C11	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C12	NDC21HJ-8R0X	C CAPACITOR	8pF,50V	A	B
C14	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C15	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C16	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C17	QEKJ1HM-335Z	E CAPACITOR	3.3µF,50V	A	B
C19	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C20	QEPF1HM-105Z	BP E CAPACITOR	1µF,50V	A	B
C21	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C22	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C23	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C24	QCBB1HK-104Y	C CAPACITOR	0.1µF,50V	A	B
C25	NDC21HJ-6R0X	C CAPACITOR	6pF,50V	A	B
C26	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C27	NCB21HK-223X	C CAPACITOR	0.022µF,50V	A	B
C28	QEKJ1HM-335Z	E CAPACITOR	3.3µF,50V	A	B
C29	NCB21EK-333X	C CAPACITOR	0.033µF,25V	A	B
C30	NCB21CK-474X	C CAPACITOR	0.47µF,16V	A	B
C31	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C32	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C33	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C34	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C35	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C36	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C37	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C38	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C40	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C44	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C45	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C53	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C59	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C61	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C63	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C64	NDC21HJ-220X	C CAPACITOR	22pF,50V	A	B
C65	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C69	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C70	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C72	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	B
C73	NDC21HJ-120X	C CAPACITOR	12pF,50V	A	B
C78	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
C80	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C84	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A	B
C92	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B
C103	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C106	NCB21HK-821X	C CAPACITOR	820pF,50V	A	B
C108	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C110	NDC21HJ-820X	C CAPACITOR	82pF,50V	A	B
C114	NDC21HJ-181X	C CAPACITOR	180pF,50V	A	B
C201	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V	A	B
C204	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C206	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B
C207	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B
C209	NCB21CK-474X	C CAPACITOR	0.47µF,16V	A	B
C210	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C211	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C212	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C213	QERF1EM-475Z	E CAPACITOR	4.7µF,25V	A	B
C214	NCB21CK-224X	C CAPACITOR	0.22µF,16V	A	B
C215	NCB21CK-224X	C CAPACITOR	0.22µF,16V	A	B
C217	NDC21HJ-560X	C CAPACITOR	56pF,50V	A	B
C218	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C222	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C225	QERF1AM-227Z	E CAPACITOR	220µF,10V	A	B
C301	NDC21HJ-151X	C CAPACITOR	150pF,50V		B
C302	NCB21CK-105X	C CAPACITOR	1µF,16V		B
C303	NCB21HK-682X	C CAPACITOR	0.0068µF,50V		B
C304	NCB21HK-682X	C CAPACITOR	0.0068µF,50V		B
C305	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C306	NCB21CK-105X	C CAPACITOR	1µF,16V		B
C307	NDC21HJ-151X	C CAPACITOR	150pF,50V		B
C308	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C309	NCB21EK-104X	C CAPACITOR	0.1µF,25V		B
C310	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C311	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C312	NCB21HK-102X	C CAPACITOR	0.001µF,50V		B
C313	NCB21CK-474X	C CAPACITOR	0.47µF,16V		B
C315	NCB21CK-105X	C CAPACITOR	1µF,16V		B
C316	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C317	NCB21HK-681X	C CAPACITOR	680pF,50V		B
C318	NCB21EK-223X	C CAPACITOR	0.022µF,25V		B
C319	NCB21CK-105X	C CAPACITOR	1µF,16V		B
C320	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C321	NDC21HG-301X	C CAPACITOR	300pF,50V		B
C322	NCB21CK-474X	C CAPACITOR	0.47µF,16V		B
C323	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V		B
C324	NDC21HJ-390X	C CAPACITOR	39pF,50V		B
C2001	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C2002	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C2003	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C2005	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C2006	NCB21HK-123X	C CAPACITOR	0.012µF,50V	A	B
C2007	QEKJ1CM-226Z	E CAPACITOR	22µF,16V	A	B
C2008	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C2009	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B
C2010	NCB21HK-152X	C CAPACITOR	0.0015µF,50V	A	B
C2011	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C2012	QEKC1HM-475Z	E CAPACITOR	4.7µF,50V	A	B
C2013	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C2017	NCB21HK-682X	C CAPACITOR	0.0068µF,50V	A	B
C2051	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C2053	NCB21HK-472X	C CAPACITOR	0.0047µF,50V	A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
C2054	NCB21EK-223X	C CAPACITOR	0.022µF,25V	A	B
C2055	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2061	QFV91HJ-823Z	MF CAPACITOR	0.082µF,50V	A	B
C2201	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2202	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C2203	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C2204	QEKJ0JM-336Z	E CAPACITOR	33µF,6.3V	A	B
C2205	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2206	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2207	NCB21HK-153X	C CAPACITOR	0.015µF,50V	A	B
C2208	NCB21HK-153X	C CAPACITOR	0.015µF,50V	A	B
C2209	QERF1CM-106Z	E CAPACITOR	10µF,16V	A	B
C2210	QERF1CM-106Z	E CAPACITOR	10µF,16V	A	B
C2211	QEKJ0JM-336Z	E CAPACITOR	33µF,6.3V	A	B
C2212	QERF0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C2214	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2215	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2216	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B
C2218	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	
C2219	QEKJ1CM-226Z	E CAPACITOR	22µF,16V	A	
C2220	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2221	NCB21EK-223X	C CAPACITOR	0.022µF,25V	A	B
C2222	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2223	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B
C2224	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B
C2225	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C2226	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C2227	QERF1CM-106Z	E CAPACITOR	10µF,16V	A	B
C2230	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2231	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C2251	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2252	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2253	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2254	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C2255	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2256	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2257	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C2258	NDC21HJ-181X	C CAPACITOR	180pF,50V	A	B
C2259	QEKJ1HM-334Z	E CAPACITOR	0.33µF,50V	A	B
C2261	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C2262	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C3008	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C3011	QETL0JM-338	E CAPACITOR	3300µF,6.3V	A	B
C3012	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C3014	QERF0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C3015	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C3016	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B
C3020	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C3021	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C3022	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C3024	NDC21HJ-220X	C CAPACITOR	22pF,50V	A	
C3024	NDC21HJ-120X	C CAPACITOR	12pF,50V		B
C3025	QAT3725-300Z	TRIM CAPACITOR			A
C3026	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C3027	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C3030	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C3031	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B
C3033	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B
C3036	NDC21HJ-180X	C CAPACITOR	18pF,50V	A	B
C3037	NDC21HJ-120X	C CAPACITOR	12pF,50V	A	B
C3040	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
C3041	NDC21HJ-150X	C CAPACITOR	15pF,50V		B
C3050	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B
C3071	QEKJ1CM-336Z	E CAPACITOR	33µF,16V	A	B
C4002	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C4004	QEKJ1AM-226Z	E CAPACITOR	22µF,10V	A	B
C4005	NCB21HK-222X	C CAPACITOR	0.0022µF,50V	A	B
C4006	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C4008	NCB21AK-105X	C CAPACITOR	1µF,10V	A	B
C4009	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
C4010	NCB21EK-223X	C CAPACITOR	0.022µF,25V	A	B
C4011	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C4012	QERF1HM-105Z	E CAPACITOR	1µF,50V	A	B
C4014	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C4015	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B
C4031	QEKJ1CM-336Z	E CAPACITOR	33µF,16V	A	B
⚠ C5001	QFZ9072-473	MM CAPACITOR	0.047µF,125V	A	B
⚠ C5004	QCZ9071-222	C CAPACITOR	0.0022µF,250V	A	B
C5006	QEZ0375-686	E CAPACITOR	68µF,400V	A	B
C5101	QCZ0212-472	C CAPACITOR	0.0047µF,1kV	A	B
C5102	QCZ0302-330Z	C CAPACITOR	33pF,1kV	A	B
C5104	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C5105	QFN31HJ-153Z	M CAPACITOR	0.015µF,50V	A	B
C5106	QCBB1HJ-271Y	C CAPACITOR	270pF,50V	A	B
C5107	QFV91HJ-104Z	MF CAPACITOR	0.1µF,50V	A	B
C5202	QETN1CM-108Z	E CAPACITOR	1000µF,16V	A	B
C5203	QEMT1AM-128	E CAPACITOR	1200µF,10V	A	B
C5204	QETJ2AM-475Z	E CAPACITOR	4.7µF,10V	A	B
C5206	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B
C5207	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B
C5301	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B
C5303	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B
C5305	QFVF1HJ-274Z	MF CAPACITOR	0.27µF,50V	A	B
C5307	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B
C5308	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B
C6008	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C6013	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C6032	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	
C6037	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C6055	NDC21HJ-220X	C CAPACITOR	22pF,50V	A	
C6056	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	
C6501	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	
C6501	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V		B
C6502	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C7011	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C7165	NCB21HK-681X	C CAPACITOR	680pF,50V	A	B
C7167	NCB21HK-681X	C CAPACITOR	680pF,50V	A	B
C7202	QETJ0JM-477Z	E CAPACITOR	470µF,6.3V	A	B
L1	QQL29BJ-100Z	P COIL	10µH	A	B
L2	QQL071J-121Y	INDUCTOR	120µH	A	B
L3	QQL29BJ-100Z	P COIL	10µH	A	B
L4	QQL29BJ-100Z	P COIL	10µH	A	B
L5	QQR0521-012Z	NOISE FILTER		A	B
L12	QQR0967-001	CHOKE COIL	12µH	A	B
L13	QQL071J-330Y	INDUCTOR	33µH	A	B
L15	QQL29BJ-100Z	P COIL	10µH	A	B
L18	QQL071J-220Y	INDUCTOR	22µH	A	B
L19	QQL071J-120Y	INDUCTOR	12µH	A	B
L20	QUY153-050Y	IM BUS WIRE		A	B
L22	QQL231J-1R0Y	INDUCTOR	1.0µH	A	B
L24	QQL071J-270Y	INDUCTOR	27µH	A	B
L27	QQL071J-330Y	INDUCTOR	33µH	A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
L28	QQL071J-680Y	INDUCTOR	68µH	A	B
L201	QQL29BK-1R0Z	P COIL	1.0µH	A	B
L202	QUY153-050Y	IM BUS WIRE		A	B
L203	QQL29BJ-220Z	P COIL	22µH	A	B
L204	QQL29BJ-100Z	P COIL	10µH	A	B
L206	QQL071J-220Y	INDUCTOR	22µH	A	B
L301	QQL29BJ-100Z	P COIL	10µH		B
L302	QQL231J-6R8Y	INDUCTOR	6.8µH		B
L303	QQL231J-270Y	INDUCTOR	27µH		B
L304	QQL29BJ-101Z	P COIL	100µH		B
L2001	QUY153-050Y	IM BUS WIRE		A	B
L2201	QUY153-050Y	IM BUS WIRE		A	B
L2251	QQL29BJ-100Z	P COIL	10µH	A	B
L2252	QQL29BJ-151Z	P COIL	150µH	A	B
L4001	QUY153-050Y	IM BUS WIRE		A	B
L5201	PELN1184	CHOKE COIL	33µH	A	B
L5202	PELN1184	CHOKE COIL	33µH	A	B
L6001	QQL29BJ-100Z	P COIL	10µH	A	B
L6002	QQL29BJ-100Z	P COIL	10µH	A	B
L6501	QUY153-050Y	IM BUS WIRE		A	B
L7201	QQL29BJ-100Z	P COIL	10µH	A	B
⚠ CP3001	QMFZ050-1R5X-E	FUSE	T1.5A,125V	A	B
⚠ CP4001	QMFZ050-1R5X-E	FUSE	T1.5A,125V	A	B
DI7001	LTG-0126M-03J	LED		A	B
FC5001	QNG0006-001Z	FUSE CLIP,FOR F5001		A	B
FC5002	QNG0006-001Z	FUSE CLIP,FOR F5001		A	B
J7105	QNN0381-002	PIN JACK,NI YWR		A	B
JS3001	QSW0954-002	ROTARY ENCODER,R.ENCODER		A	B
K2001	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B
K2002	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B
K2003	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B
K2004	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B
K2251	NQR0007-001X	FERRITE BEADS		A	B
K2252	NQR0007-001X	FERRITE BEADS		A	B
K2253	NQR0007-001X	FERRITE BEADS		A	B
K5101	QQR0678-001Z	FERRITE BEADS		A	B
K5102	QUY153-050Y	IM BUS WIRE		A	B
⚠ LF5002	QQR0978-001	LINE FILTER		A	B
PC3001	RPI-304J	IC(PHOTO SENSOR),SP REEL		A	B
PC3002	RPI-304J	IC(PHOTO SENSOR),TU REEL		A	B
⚠ PC5101	PC123Y22	IC(PHOTO COUPLER)		A	B
S3001	QSW0602-004	PUSH SWITCH,REC.SAFETY		A	B
S3002	QSW0602-004	PUSH SWITCH,S.CASS		A	B
S7002	QSW0456-002Z	TACT SWITCH,POWER		A	B
S7003	QSW0456-002Z	TACT SWITCH,TIMER		A	B
S7004	QSW0456-002Z	TACT SWITCH,REC LINK		A	B
S7006	QSW0456-002Z	TACT SWITCH,SVHS ET		A	B
S7010	QSW0456-002Z	TACT SWITCH,REC		A	B
S7011	QSW0456-002Z	TACT SWITCH,PAUSE		A	B
S7013	QSW0456-002Z	TACT SWITCH,STOP/EJ		A	B
S7015	QSW0456-002Z	TACT SWITCH,PLAY		A	B
S7017	QSW0456-002Z	TACT SWITCH,SP/LP/EP		A	B
T2051	PELN0832	OSC TRANS		A	B
⚠ T5001	QQS0083-001	SW TRANSF		A	B
TP106	QUY160-100Y	IM BUS WIRE,PB FM		A	B
TP111	QUY160-100Y	IM BUS WIRE,D.FF		A	B
TP2253	QUY160-100Y	IM BUS WIRE,A.PB FM		A	B
TP2254	QUY160-100Y	IM BUS WIRE,A.REC.FM		A	B
TP4001	QUY160-100Y	IM BUS WIRE,CTL.P		A	B
TU6001	QAU0261-002	TUNER,15ALPS3SYS		A	
TU6001	QAU0210-001	TUNER,LG BG/L			B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A B
WR6501	QUB321-16A4A4	SIN TWIST WIRE,W421-D2		B
X1	QAX0576-001Z	CRYSTAL,PAL		A B
X3001	QAX0445-001	CRYSTAL,32K ADJ		A
X3001	QAX0444-001	CRYSTAL,32K ADJ		B
X3002	QAX0527-001	CRYSTAL,10MHz		A B
SD1	LP21105-001A	SHIELD CASE,FOR P/R		A B
ET1	PQ21623-2-5	EARTH PLATE(RF),FOR TUNER		A B
HS1	LP40090-001A	HEAT SINK,FOR Q5101		A B
OT1	QYTDSF3010Z	TAP SCREW,X2,FOR TERM_B		A B
OT2	PU59915-110	#500SPACER0.014,R2041		A B
OT3	QYTDST3006Z	TAP SCREW,FOR Q5101		A B
OT4	PM30130-001	SPACER,FOR WR6501		B
CN1	QGF1201C2-09	FPC CONNECTOR,DRUM 1-9		A B
CN901	QGB2024K1-10S	B TO B CONNECTOR,TERMINAL		A B
CN902	QGB2024K1-12S	B TO B CONNECTOR,TERMINAL		A B
CN903	QGB2024K1-10S	B TO B CONNECTOR,TERMINAL		A B
CN904	QGB2024K1-11S	B TO B CONNECTOR,TERMINAL		A B
CN905	QGB2024K1-09S	B TO B CONNECTOR,TERMINAL		A B
CN2001	QGF1207C1-06	FPC CONNECTOR,A/C HEAD		A B
CN2002	QGB2532J1-02	B TO B CONNECTOR,FE HEAD		A B
CN3001	QGB2032M4-12	B TO B CONNECTOR,CAP+DRUM M		A B
⚠ CN5001	QGA7901C3-02	W TO B CONNECTOR,POWER CORD		A B
CN7002	QGF1207C1-04	FPC CONNECTOR,A.JOG V16		A B
⚠ F5001	QMF51E2-2R0-J1	FUSE	T2.0A,AC250V	A B

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2D DIGITAL BOARD ASSEMBLY <05>

PW1	LPA10162-02C	2D DIGITAL BOARD ASSY		A B
IC1201	JCP8036	IC		A B
IC1201 or	JCP8057	IC		A B
Q1201	2SC1317/RS/-T	TRANSISTOR		A B
Q1202	2SA1576A/QR/-X	TRANSISTOR		A B
Q1202 or	2PA1576/R/-X	TRANSISTOR		A B
Q1203	2SA1576A/QR/-X	TRANSISTOR		A B
Q1203 or	2PA1576/R/-X	TRANSISTOR		A B
Q1204	2SC4081/QRS/-X	TRANSISTOR		A B
Q1204 or	2PC4081/R/-X	TRANSISTOR		A B
Q1205	2SC4081/S/-X	TRANSISTOR		A B
D1201	RD4.3ES/B3/-T2	Z DIODE		A B
R1201	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A B
R1202	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R1203	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B
R1204	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B
R1205	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B
R1206	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B
R1207	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A B
R1208	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A B
R1209	NRSA02J-180X	MG RESISTOR	18Ω,1/10W	A B
R1210	NRVA02D-393X	CMF RESISTOR	39Ω,1/10W	A B
R1211	NRVA02D-153X	CMF RESISTOR	15Ω,1/10W	A B
R1212	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B
R1213	NRSA02J-331X	MG RESISTOR	330Ω,1/10W	A B
R1214	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A B
R1215	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B
R1216	NRSA02J-331X	MG RESISTOR	330Ω,1/10W	A B
R1217	NRVA02D-101X	CMF RESISTOR	100Ω,1/10W	A B
R1218	NRVA02D-301X	CMF RESISTOR	300Ω,1/10W	A B
R1220	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B
R1222	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A B
R1224	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B
VR1201	QUY153-050Y	IM BUS WIRE		A B
C1201	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B
C1208	NDC21HJ-221X	C CAPACITOR	220pF,50V	A B
C1210	NDC21HJ-330X	C CAPACITOR	33pF,50V	A B
C1211	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B
C1212	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A B
C1213	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1214	NCF21CZ-105X	C CAPACITOR	1µF,16V	A B
C1215	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B
C1216	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1217	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1218	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1219	NCF21CZ-105X	C CAPACITOR	1µF,16V	A B
C1220	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B
C1222	NDC21HJ-820X	C CAPACITOR	82pF,50V	A B
C1223	NDC21HJ-270X	C CAPACITOR	27pF,50V	A B
C1225	NDC21HJ-820X	C CAPACITOR	82pF,50V	A B
C1226	NDC21HJ-270X	C CAPACITOR	27pF,50V	A B
C1227	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A B
C1228	QEKJ1EM-475Z	E CAPACITOR	4.7µF,25V	A B
C1229	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A B
C1230	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1231	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1232	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1233	QDYB1CM-103Y	C CAPACITOR	0.01µF,16V	A B
C1234	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1235	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B
C1236	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1237	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B
C1238	NDC21HJ-180X	C CAPACITOR	18pF,50V	A B
C1239	NDC21HJ-560X	C CAPACITOR	56pF,50V	A B
C1243	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A B
C1244	QEKJ1EM-475Z	E CAPACITOR	4.7µF,25V	A B
C1245	NDC21HJ-150X	C CAPACITOR	15pF,50V	A B
C1246	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B
L1201	QQL071J-1R0Y	INDUCTOR	1.0µH	A B
L1202	QRE141J-181Y	C RESISTOR	180Ω,1/4W	A B
L1203	QQL29BJ-331Z	P COIL	330µH	A B
L1204	QQL29BJ-221Z	P COIL	220µH	A B
L1205	QQL071J-6R8Y	INDUCTOR	6.8µH	A B
L1206	QQL071J-6R8Y	INDUCTOR	6.8µH	A B
L1207	QQL29BJ-221Z	P COIL	220µH	A B
L1208	QQL071J-150Y	INDUCTOR	15µH	A B
LC1201	QQL29BJ-101Z	P COIL	100µH	A B
SD1	LP31098-001B	SHIELD CASE(DEG)		A B
BK1	LP40425-001A	BRACKET(PWB)		A B
CN1201	QGG2502K1-12	HEADER PIN		A B

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TERMINAL BOARD ASSEMBLY <06>

PW1	LPA10138-07A	TERMINAL BOARD ASSY,S1EU/EK	A
PW1	LPA10138-11A	TERMINAL BOARD ASSY,S1MS	B
IC501	JCP8018	IC	A B
IC501 or	JCP8028	IC	A B
IC501 or	JCP8028-01	IC	A B
IC501 or	JCP8038	IC	A B
IC502	VC2076DP	IC	A B
IC901	BH7636S	IC,CH+	A B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
Q901	UN5211-X	DIGI TRANSISTOR		A	B
Q901 or	DTC114EUA-X	DIGI TRANSISTOR		A	B
Q901 or	RN1302-X	DIGI TRANSISTOR		A	B
Q901 or	PDTC114EU-X	DIGI TRANSISTOR		A	B
Q902	2SB1218A/QR/-X	TRANSISTOR		A	B
Q902 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q902 or	2PA1576/R/-X	TRANSISTOR		A	B
Q905	UN521E-X	DIGI TRANSISTOR		A	B
Q905 or	DTC144WUA-X	DIGI TRANSISTOR		A	B
Q905 or	RN1309-X	DIGI TRANSISTOR		A	B
Q905 or	PDTC144WU-X	DIGI TRANSISTOR		A	B
Q906	2SD1819A/QRS/-X	TRANSISTOR		A	B
Q906 or	2SC4081/QRS/-X	TRANSISTOR		A	B
Q906 or	2PC4081/R/-X	TRANSISTOR		A	B
Q907	2SD1819A/QRS/-X	TRANSISTOR		A	B
Q907 or	2SC4081/QRS/-X	TRANSISTOR		A	B
Q907 or	2PC4081/R/-X	TRANSISTOR		A	B
Q908	2SD1819A/QRS/-X	TRANSISTOR		A	B
Q908 or	2SC4081/QRS/-X	TRANSISTOR		A	B
Q908 or	2PC4081/R/-X	TRANSISTOR		A	B
Q909	2SB1218A/QR/-X	TRANSISTOR		A	B
Q909 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q909 or	2PA1576/R/-X	TRANSISTOR		A	B
Q910	2SB1218A/QR/-X	TRANSISTOR		A	B
Q910 or	2SA1576A/QR/-X	TRANSISTOR		A	B
Q910 or	2PA1576/R/-X	TRANSISTOR		A	B
Q911	UN521E-X	DIGI TRANSISTOR		A	B
Q911 or	DTC144WUA-X	DIGI TRANSISTOR		A	B
Q911 or	RN1309-X	DIGI TRANSISTOR		A	B
Q911 or	PDTC144WU-X	DIGI TRANSISTOR		A	B
Q912	UN5215-X	DIGI TRANSISTOR		A	B
Q912 or	DTC114TUA-X	DIGI TRANSISTOR		A	B
Q912 or	RN1311-X	D TRANSISTOR		A	B
Q912 or	PDTC114TU-X	DIGI TRANSISTOR		A	B
R503	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B
R504	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B
R505	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A	B
R506	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A	B
R507	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A	B
R508	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A	B
R509	NRSA02J-162X	MG RESISTOR	1.6kΩ,1/10W	A	B
R510	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W	A	B
R511	NRVA02D-471X	CMF RESISTOR	470Ω,1/10W	A	B
R512	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W	A	B
R513	NRVA02D-152X	CMF RESISTOR	1.5kΩ,1/10W	A	B
R514	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W	A	B
R515	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W	A	B
R516	QUY160-100Y	IM BUS WIRE		A	B
R517	QUY160-100Y	IM BUS WIRE		A	B
R525	QRE141J-125Y	C RESISTOR	1.2MΩ,1/4W	A	B
R527	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	
R531	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R532	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R533	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R534	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R535	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R536	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R901	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R902	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R903	QRE141J-680Y	C RESISTOR	68Ω,1/4W	A	B
R904	NQL402M-4R7X	INDUCTOR	4.7µH	A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
R905	NQL402M-4R7X	INDUCTOR	4.7µH	A	B
R906	QQL231J-100Y	INDUCTOR	10µH	A	B
R907	QQL231J-100Y	INDUCTOR	10µH	A	B
R908	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R909	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R910	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R911	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R912	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R913	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R914	QQL231J-100Y	INDUCTOR	10µH	A	B
R915	QQL231J-100Y	INDUCTOR	10µH	A	B
R916	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R917	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R918	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R929	NRSA02J-820X	MG RESISTOR	82Ω,1/10W	A	B
R930	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B
R931	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
R932	NRSA02J-511X	MG RESISTOR	510Ω,1/10W	A	B
R933	NRSA02J-471X	MG RESISTOR	470Ω1/10W	A	B
R934	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B
R935	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B
R936	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B
R937	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B
R938	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B
R939	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B
R940	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B
R941	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B
R942	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B
R943	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
R944	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B
R945	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R946	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A	B
R947	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B
R949	QRE121J-331Y	C RESISTOR	330Ω,1/2W	A	B
R951	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B
R952	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
R953	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
R964	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B
C501	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C502	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C503	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C504	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C505	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C506	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C507	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C508	QEKJ1HM-474Z	E CAPACITOR	0.47µF,50V	A	B
C509	QEKJ1CM-106Z	E CAPACITOR	10µF,16V	A	B
C510	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C511	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C512	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C513	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C514	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C515	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C516	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C518	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B
C519	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C520	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C521	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B
C522	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C523	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C524	NDC21HG-301X	C CAPACITOR	300pF,50V	A	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
C525	NDC21HG-301X	C CAPACITOR	300pF,50V	A	B
C526	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C527	NDC21HJ-181X	C CAPACITOR	180pF,50V	A	B
C528	NDC21HG-271X	C CAPACITOR	270pF,50V	A	B
C529	NDC21HG-820X	C CAPACITOR	82pF,50V	A	B
C530	NDC21HG-221X	C CAPACITOR	220pF,50V	A	B
C531	NDC21HG-301X	C CAPACITOR	300pF,50V	A	B
C532	NDC21HG-301X	C CAPACITOR	300pF,50V	A	B
C533	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C534	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B
C535	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C551	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C553	QCBB1HK-103Y	C CAPACITOR	0.01µF,50V	A	B
C554	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C556	QCBB1HK-103Y	C CAPACITOR	0.01µF,50V	A	B
C557	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C559	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C560	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C561	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B
C562	QEKJ1HM-105Z	E CAPACITOR	1µF,50V		B
C563	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	
C564	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C566	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C568	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C569	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C570	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C571	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C572	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C573	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B
C575	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B
C901	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C902	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C903	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C904	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C905	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C906	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C907	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C908	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C910	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B
C912	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B
C915	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C916	NCB21HK-223X	C CAPACITOR	0.022µF,50V	A	B
C917	NCB21HK-223X	C CAPACITOR	0.022µF,50V	A	B
C918	QCBB1HK-223Y	C CAPACITOR	0.22µF,50V	A	B
C921	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B
C923	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B
C924	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C925	NCB21HK-223X	C CAPACITOR	0.022µF,50V	A	B
C927	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B
C928	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C931	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C935	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C936	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C937	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C938	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C939	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C940	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B
C943	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B
C945	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C946	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C951	QEKC1CM-476Z	E CAPACITOR	47µF,16V	A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
C958	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
C959	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B
L501	QQL29BJ-100Z	P COIL	10µH	A	B
L503	QQL29BJ-100Z	P COIL	10µH	A	B
L504	QQL29BJ-100Z	P COIL	10µH	A	B
L505	QUY153-050Y	IM BUS WIRE		A	B
L901	QQL231J-R22Y	INDUCTOR	0.22µH	A	B
L902	QQL071J-1R0Y	INDUCTOR	1.0µH	A	B
L903	QQL071J-150Y	INDUCTOR	15µH	A	B
L904	QQL071J-150Y	INDUCTOR	15µH	A	B
L907	QUY153-050Y	IM BUS WIRE		A	B
L910	QQL071J-1R0Y	INDUCTOR	1.0µH	A	B
L913	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L914	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L915	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L916	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L917	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L918	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L919	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
L920	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B
J901	PEMC1177	RGB21PIN SOCKET,AV1		A	B
J902	PEMC1177	RGB21PIN SOCKET,AV2		A	B
J915	QNN0418-003	PIN JACK,A.OUT(L)		A	B
J916	QNN0418-002	PIN JACK,A.OUT(R)		A	B
J921	PU60659	MINI JACK,SAT.CTL		A	B
⚠ TB1	LP21028-001A	TERMINAL BOARD		A	B
ET1	LP30918-001A	EARTH PLATE,FOR EMC		A	B
ET2	LP30915-001A	EARTH PLATE		A	B
OT1	QYTDSF3008Z	TAP SCREW,X6		A	B
CN511	QGF1208F1-11	FPC CONNECTOR,P/S CONV			B
CN911	QGB2024J1-10S	B TO B CONNECTOR		A	B
CN912	QGB2024J1-12S	B TO B CONNECTOR		A	B
CN913	QGB2024J1-10S	B TO B CONNECTOR		A	B
CN914	QGB2024J1-11S	B TO B CONNECTOR		A	B
CN915	QGB2024J1-09S	B TO B CONNECTOR		A	B
CN916	QGF1208F1-04	FPC CONNECTOR,FRONT S IN		A	B

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A/C HEAD BOARD ASSEMBLY <12>

PW1	LPA10158-01A1	A/C HEAD BOARD ASSY		A B

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DEMOD BOARD ASSEMBLY <14>

PW1	LPA10094-09A	DEMOD BOARD ASSY		A
PW1	LPA10094-10B	DEMOD BOARD ASSY		B
IC6701	MSP3417G-X	IC		A B
IC6701 or	MSP3417GQGB8V3X	IC		A B
IC6701 or	MSP3417D-X	IC		A B
Q6701	2SC3936/BC/-X	TRANSISTOR		A B
D6701	1SS133-T2	SI DIODE		A B
D6701 or	1N4148M-T2	DIODE		A B
R6701	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A B
R6702	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B
R6703	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B
R6704	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B
R6705	NRSA02J-271X	MG RESISTOR	270Ω,1/10W	A B
R6707	NQR0200-003X	FERRITE BEADS		A B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
R6708	NQR0200-003X	FERRITE BEADS		A	B
R6709	NQR0200-003X	FERRITE BEADS		A	B
R6710	NQR0200-003X	FERRITE BEADS		A	B
R6711	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A	B
R6712	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R6713	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A	B
R6714	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B
R6715	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A	B
R6716	NQR0200-003X	FERRITE BEADS		A	B
R6719	QRE141J-103Y	C RESISTOR	10kΩ,1/4W	A	B
R6720	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
R6721	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B
C6701	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C6704	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C6707	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	B
C6708	NDC21HJ-7R0X	C CAPACITOR	7pF,50V	A	B
C6709	NDC21HJ-3R0X	C CAPACITOR	3pF,50V	A	B
C6713	NCF21CZ-224X	C CAPACITOR	0.22µF,16V	A	B
C6714	NCB21HK-222X	C CAPACITOR	0.0022µF,50V	A	
C6714	NCB21HK-682X	C CAPACITOR	0.0068µF,50V		B
C6715	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C6716	NCB21HK-222X	C CAPACITOR	0.0022µF,50V	A	
C6716	NCB21HK-682X	C CAPACITOR	0.0068µF,50V		B
C6717	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V	A	B
C6719	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C6720	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B
C6721	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C6723	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B
C6724	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V		B
L6701	QUY153-050Y	IM BUS WIRE		A	B
X6701	QAX0443-001	CRYSTAL		A	B
K6701	NRSA02J-330X	MG RESISTOR	33Ω,1/10W	A	B
K6702	NQR0200-003X	FERRITE BEADS		A	B
K6703	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	
K6703	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
K6704	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B
K6705	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	
K6705	NRSA02J-100X	MG RESISTOR	10Ω,1/10W		B
K6706	NRSA02J-470X	MG RESISTOR	47Ω,1/10W	A	B
K6707	NQR0200-003X	FERRITE BEADS,MS ONLY			B
BK1	LP40425-001A	BRACKET(PWB)		A	B
CN6701	QGG2502K1-10	HEADER PIN		A	B

****

S JACK BOARD ASSEMBLY <36>

PW1	LPA20009-02B	S JACK BOARD ASSY	A	B
J7102	QND0084-001	S JACK	A	B
CN7108	QGF1209F1-04	FPC CONNECTOR	A	B

****

ADV. JOG BOARD ASSEMBLY <39>

PW1	LPA10191-03A	ADV JOG BOARD ASSY		A	B
R7047	QRE141J-472Y	C RESISTOR	4.7kΩ,1/4W	A	B
UN7001	QSW0938-001	ROTARY ENCODER,400K		A	B
S7030	QSW0456-002Z	TACT SWITCH,24H EXP		A	B
CN7004	QGF1209F1-04	FPC CONNECTOR,1-4		A	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION	A	B

****

LOADING MOTOR BOARD ASSEMBLY <55>

PW2	LPA10158-01A2	LOADING MOTOR BOARD ASSY	A	B

****

S-P CONV. BOARD ASSEMBLY <87> [FOR HR-S6965EF]

PW1	LPA10144-06A	S-P CONV BOARD ASSY,S->P CONV	B
IC1601	BA7046F-XE	IC	B
IC1602	74HC132D-X	IC(DIGITAL)	B
IC1603	74HC4538D-X	IC	B
IC1604	74HC74D-X	IC	B
IC1605	TDA8395	IC	B
IC1606	TDA4665T-X	IC	B
IC1607	TDA8501T/N1-X	IC	B
Q1601	2SB1218A/QR/-X	TRANSISTOR	B
Q1601 or	2SA1576A/QR/-X	TRANSISTOR	B
Q1601 or	2PA1576/R/-X	TRANSISTOR	B
Q1604	2SD1819A/QRS/-X	TRANSISTOR	B
Q1604 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1604 or	2PC4081/R/-X	TRANSISTOR	B
Q1605	2SB1218A/QR/-X	TRANSISTOR	B
Q1605 or	2SA1576A/QR/-X	TRANSISTOR	B
Q1605 or	2PA1576/R/-X	TRANSISTOR	B
Q1606	2SC1740S/QRS/-T	TRANSISTOR	B
Q1607	2SD1819A/QRS/-X	TRANSISTOR	B
Q1607 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1607 or	2PC4081/R/-X	TRANSISTOR	B
Q1608	2SB1218A/QR/-X	TRANSISTOR	B
Q1608 or	2SA1576A/QR/-X	TRANSISTOR	B
Q1608 or	2PA1576/R/-X	TRANSISTOR	B
Q1609	2SD1819A/QRS/-X	TRANSISTOR	B
Q1609 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1609 or	2PC4081/R/-X	TRANSISTOR	B
Q1610	2SD1819A/QRS/-X	TRANSISTOR	B
Q1610 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1610 or	2PC4081/R/-X	TRANSISTOR	B
Q1611	2SB1218A/QR/-X	TRANSISTOR	B
Q1611 or	2SA1576A/QR/-X	TRANSISTOR	B
Q1611 or	2PA1576/R/-X	TRANSISTOR	B
Q1612	2SD1819A/QRS/-X	TRANSISTOR	B
Q1612 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1612 or	2PC4081/R/-X	TRANSISTOR	B
Q1613	2SC4083/NP/-X	TRANSISTOR	B
Q1614	2SB1218A/QR/-X	TRANSISTOR	B
Q1614 or	2SA1576A/QR/-X	TRANSISTOR	B
Q1614 or	2PA1576/R/-X	TRANSISTOR	B
Q1615	2SD1819A/QRS/-X	TRANSISTOR	B
Q1615 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1615 or	2PC4081/R/-X	TRANSISTOR	B
Q1616	2SD1819A/QRS/-X	TRANSISTOR	B
Q1616 or	2SC4081/QRS/-X	TRANSISTOR	B
Q1616 or	2PC4081/R/-X	TRANSISTOR	B
Q1617	2SB1218A/QR/-X	TRANSISTOR	B
Q1617 or	2SA1576A/QR/-X	TRANSISTOR	B
Q1617 or	2PA1576/R/-X	TRANSISTOR	B
Q1619	DTA143TUA-X	DIGI TRANSISTOR	B

MODEL	MARK
HR-S6960EX	A
HR-S6965EF	B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
D1601	1SS133-T2	SI DIODE			B
R1601	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W		B
R1608	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W		B
R1609	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1610	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1611	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W		B
R1612	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W		B
R1615	NRSA02J-331X	MG RESISTOR	330Ω,1/10W		B
R1616	NRSA02J-474X	MG RESISTOR	470kΩ,1/10W		B
R1617	NRSA02J-474X	MG RESISTOR	470kΩ,1/10W		B
R1618	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W		B
R1619	NRSA02J-134X	MG RESISTOR	130kΩ,1/10W		B
R1620	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W		B
R1621	QRE141J-103Y	C RESISTOR	10kΩ,1/4W		B
R1622	QRE141J-103Y	C RESISTOR	10kΩ,1/4W		B
R1623	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W		B
R1624	NRSA02J-124X	MG RESISTOR	120kΩ,1/10W		B
R1631	NRSA02J-561X	MG RESISTOR	560Ω,1/10W		B
R1632	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W		B
R1633	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W		B
R1635	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W		B
R1636	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1637	NRSA02J-681X	MG RESISTOR	680Ω,1/10W		B
R1638	NRSA02J-101X	MG RESISTOR	100Ω,1/10W		B
R1639	NRSA02J-331X	MG RESISTOR	330Ω,1/10W		B
R1640	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W		B
R1641	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1642	NRSA02J-681X	MG RESISTOR	680Ω,1/10W		B
R1643	NRSA02J-101X	MG RESISTOR	100Ω,1/10W		B
R1644	NRSA02J-331X	MG RESISTOR	330Ω,1/10W		B
R1645	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W		B
R1646	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W		B
R1647	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W		B
R1648	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1651	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W		B
R1652	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1653	NRSA02J-184X	MG RESISTOR	180kΩ,1/10W		B
R1654	NRSA02J-561X	MG RESISTOR	560Ω,1/10W		B
R1655	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1656	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W		B
R1657	NRSA02J-561X	MG RESISTOR	560Ω,1/10W		B
R1658	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		B
R1659	NRSA02J-681X	MG RESISTOR	680Ω,1/10W		B
R1660	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W		B
R1661	NRSA02J-333X	MG RESISTOR	33kΩ,1/10W		B
VR1601		QVP0039-471Z	TRIM RESISTOR		B
VR1602		QVP0039-471Z	TRIM RESISTOR		B
VR1603		QVP0039-104Z	TRIM RESISTOR		B
B1601	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
B1602	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
B1603	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
B1607	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
B1608	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		B
C1601	QEKJ1CM-476Z	E CAPACITOR	47µF,16V		B
C1602	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1605	QEKJ1HM-105Z	E CAPACITOR	1µF,50V		B
C1606	NCB21HK-102X	C CAPACITOR	0.001µF,50V		B
C1607	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1608	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V		B
C1609	NCB21HK-222X	C CAPACITOR	0.0022µF,50V		B
C1610	QEKJ1HM-105Z	E CAPACITOR	1µF,50V		B

#⚠ REF No.	PART No.	PART NAME, DESCRIPTION		A	B
C1611	NDC21HJ-101X	C CAPACITOR	100pF,50V		B
C1612	NCB21EK-104X	C CAPACITOR	0.1µF,25V		B
C1613	NCB21EK-104X	C CAPACITOR	0.1µF,25V		B
C1614	NDC21HJ-471X	C CAPACITOR	470pF,50V		B
C1615	NDC21HJ-561X	C CAPACITOR	560pF,50V		B
C1616	NCB21EK-104X	C CAPACITOR	0.1µF,25V		B
C1631	QEKJ1CM-476Z	E CAPACITOR	47µF,16V		B
C1632	QEKJ1CM-476Z	E CAPACITOR	47µF,16V		B
C1633	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1634	NDC21HJ-101X	C CAPACITOR	100pF,50V		B
C1635	NCB21EK-104X	C CAPACITOR	0.1µF,25V		B
C1636	NCB21CK-224X	C CAPACITOR	0.22µF,16V		B
C1637	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1638	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V		B
C1639	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1640	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V		B
C1641	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1642	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1643	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1644	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1645	QEKJ1HM-105Z	E CAPACITOR	1µF,50V		B
C1646	QEKJ1HM-105Z	E CAPACITOR	1µF,50V		B
C1647	NCB21CK-224X	C CAPACITOR	0.22µF,16V		B
C1648	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V		B
C1649	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1650	NCB21CK-224X	C CAPACITOR	0.22µF,16V		B
C1651	NCB21EK-223X	C CAPACITOR	0.022µF,25V		B
C1652	NDC21HJ-120X	C CAPACITOR	12pF,50V		B
C1653	NCB21CK-224X	C CAPACITOR	0.22µF,16V		B
C1654	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
C1655	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V		B
C1656	NCB21HK-103X	C CAPACITOR	0.01µF,50V		B
L1601	QQL29BJ-100Z	P COIL	10µH		B
L1602	QQL29BJ-100Z	P COIL	10µH		B
L1603	QQL29BJ-100Z	P COIL	10µH		B
L1604	QQL29BJ-100Z	P COIL	10µH		B
FL1601	QQR1187-001	EQ			B
FL1602	QQR1187-001	EQ			B
X1601	QAX0613-001Z	CRYSTAL	4.433619MHz		B
BK1	LP30950-001A	BRACKET(1)			B
BK2	LP30951-001A	BRACKET(2)			B
OT1	PU59915-105	#500SPACER0.01,FOR X1601			B
CN1601	QGF1208F1-11	FPC CONNECTOR			B

JVC

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AV & MULTIMEDIA COMPANY. 12,3-chome,Moriya-cho,Kanagawa-ku,Yokohama,Kanagawa-prefecture,221-8528,Japan

Printed in Japan
0306 VP

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SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

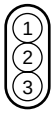
2. Indications of control voltage

AUX : Active at high.

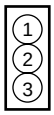
$\overline{\text{AUX}}$ or AUX(L) : Active at low.

3. Interpreting Connector indications

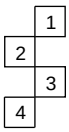
Removable connector



Wire soldered directly on board



Non-removable Board connector



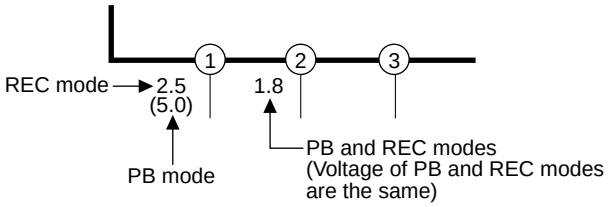
Board to Board

Connected pattern on board
The arrows indicate signal path

Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

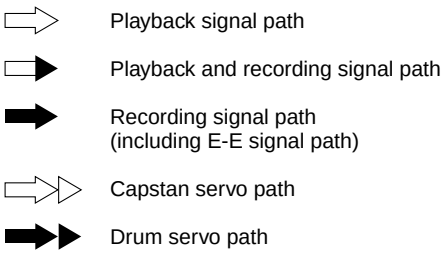


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

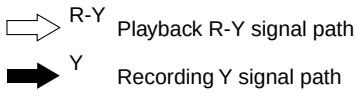
5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.

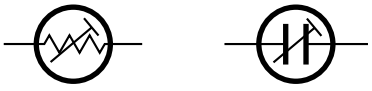


(Example)



6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

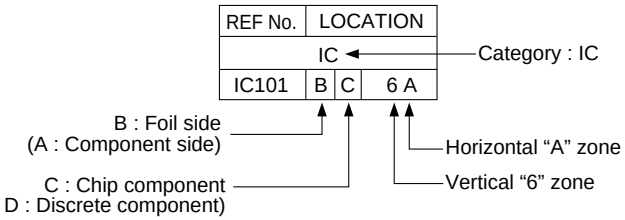
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

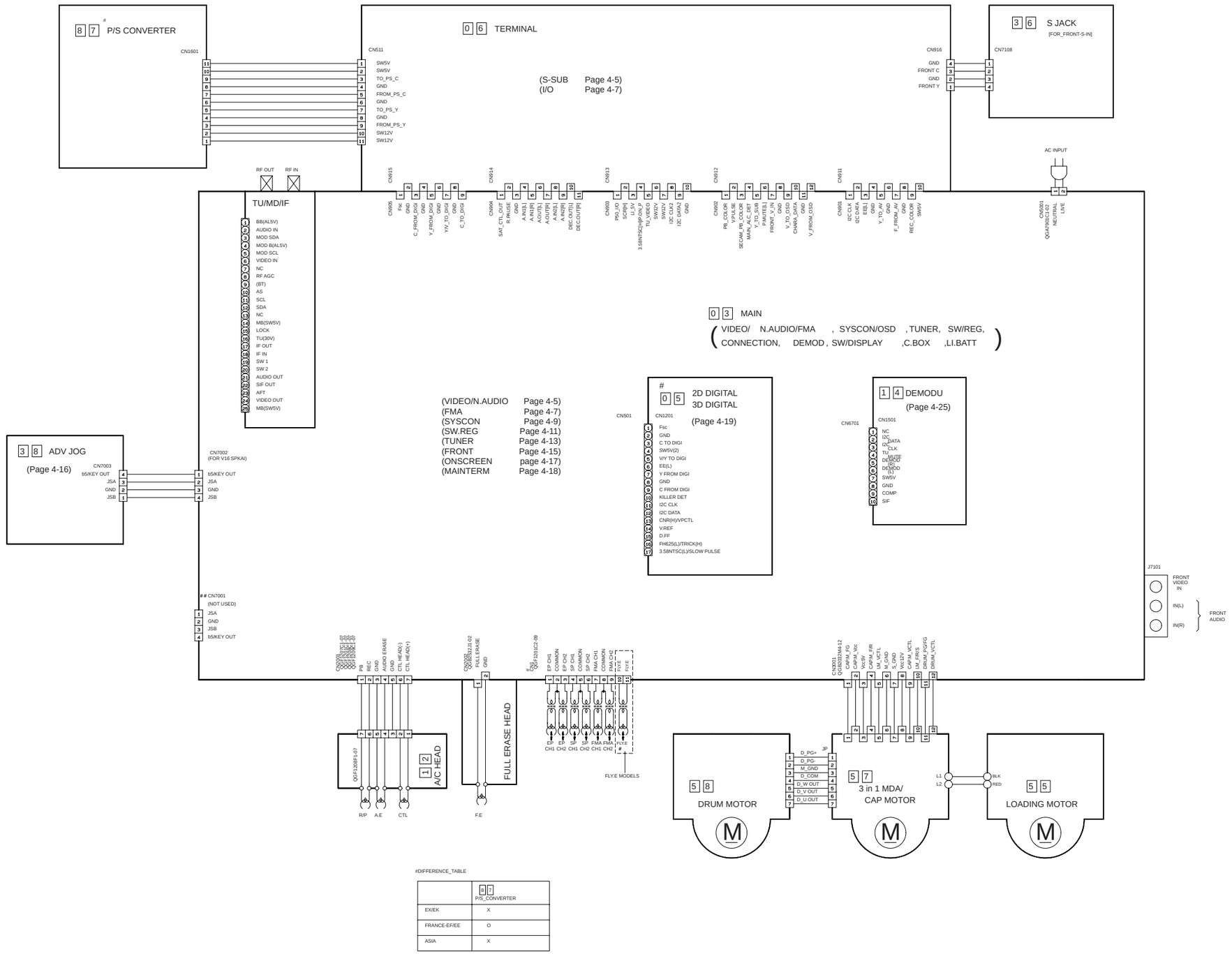
2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS



#DIFFERENCE_TABLE

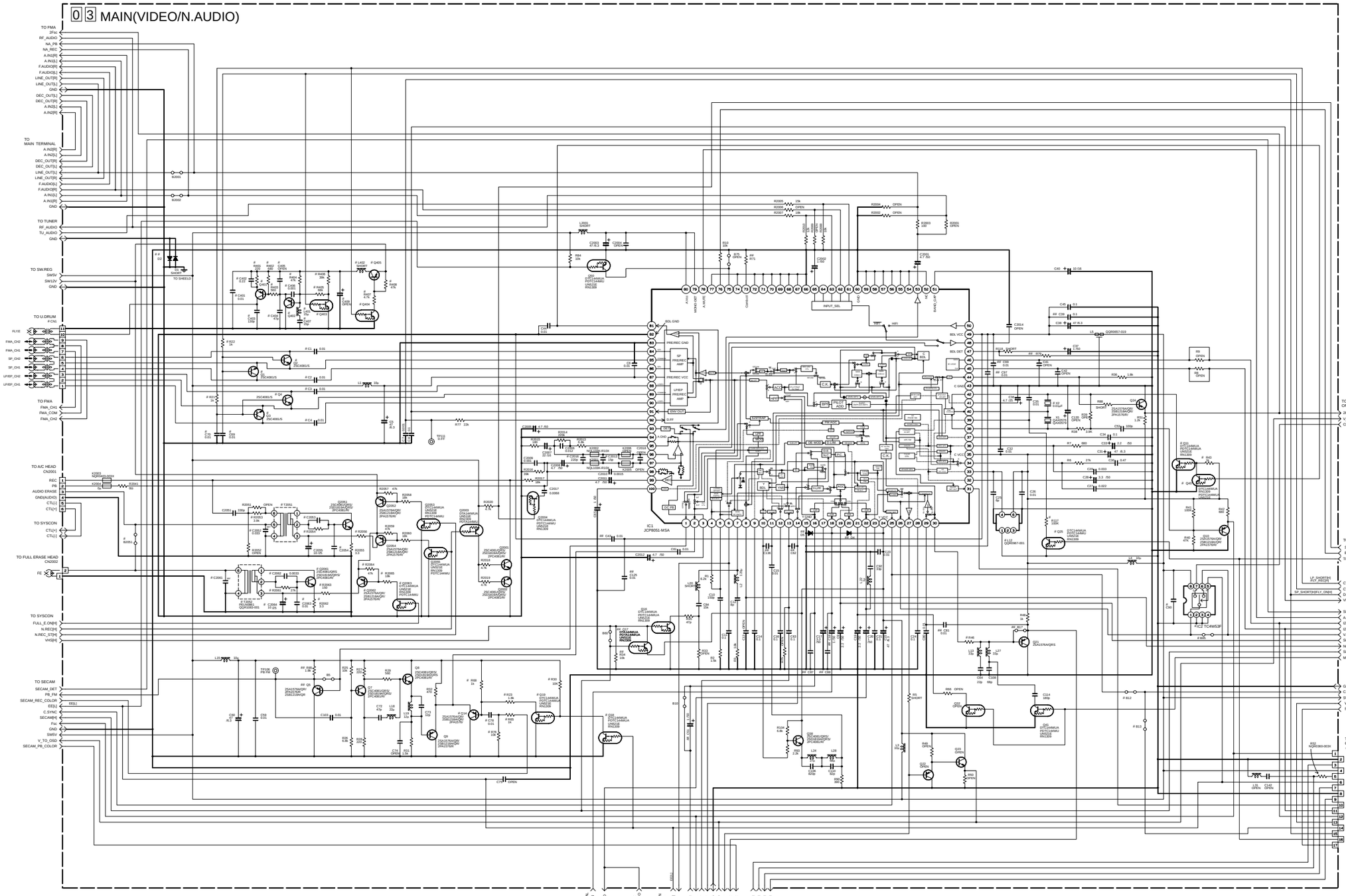
	8 7 P/S_CONVERTER
EX/EK	X
FRANCE-EF/EE	O
ASIA	X

[SECAM->PAL_CONVERTER]

NO	NAME
96	
93	
92	
91	
87	P/S CONVERTER
76	
58	DRUM MOTOR
57	3in1 MDA/CAP.MOTOR
55	LOADING MOTOR
38	ADV.JOG
36	S JACK
14	DEMOD
12	A/C HEAD
09	
05	2D/3D DIGITAL
03	MAIN

p10505001a_rev0

4.2 MAIN(VIDEO/N.AUDIO) SCHEMATIC DIAGRAM



#DEFFERENCE TABLE

SP LINEUP	CN1	FLYERASE	H.SHORT	PRE.IN	PAL_EP TRICK		C.TRAP	3D			for_MS	AUDIO.DUBBING								
		R401-R408 Q401-Q405 C401-C407 L401,L402 C409	Q1-Q4 "C99,C170" "R21,R22"	C1-C4	R43 Q11 Q40	R117 Q25	R46	B12	B13	X2 0.01uF	"Q14,Q18,Q19" "R23,R30R60" "R68,R75,C79"	Function	T2051	B2051	R2053	R2054	R2056	C2053	C2054	C2061	Q2061-Q2063 T2052 IC2052 R2065-R2065 C2062-C2064
S8960EX,S8965EK(S25)	1-11	○	×	0.1	×	○	470	×	○	○	×	○	PEILN0860	×	3.9k	15k	100	0.0033	0.01	0.033	○
S8960AG(S25)	1-11	○	×	0.1	×	○	470	×	○	○	×	○	PEILN0860	×	3.9k	15k	100	0.0033	0.01	0.033	○
S7960EX,S7965EK(S2)	1-9	×	○	0.01	×	○	470	×	○	○	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S7965EF(S2)	1-9	×	○	0.01	×	○	470	×	○	○	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S6960EX(S1)	1-9	×	○	0.01	○	×	220	○	×	×	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S6965EF(S1)	1-9	×	○	0.01	○	×	220	○	×	×	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S6960AA(S1)	1-9	×	○	0.01	×	×	220	○	×	×	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×

○ : Used
× : Not used

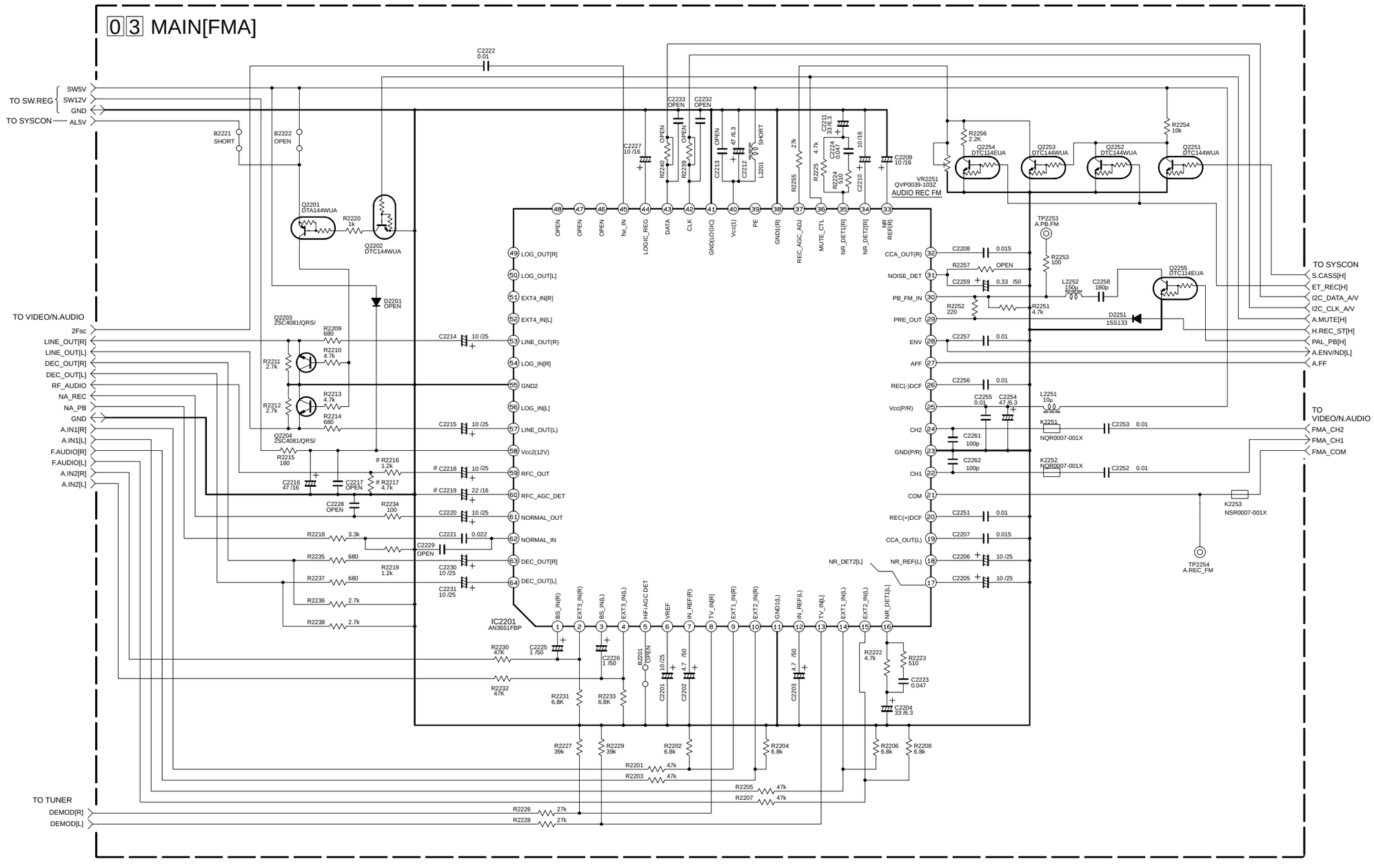
MARKS ARE NOT MOUNTED ALL MODELS

TITLE REC	B65	IC2 C90
YES	×	○
NO	○	×

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR
ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/
ALL NPN TYPE DIGITAL TRANSISTORS ARE DTC144WUA or UNS31E or RN1309 or PDTC144WU
ALL PNP TYPE DIGITAL TRANSISTORS ARE DTA144WUA or UNS11E or RN2309 or PDTA144WU

p10439001a_rev1.1

4.3 MAIN(FMA) SCHEMATIC DIAGRAM



#DIFFERENCE TABLE 1 ○ : Used × : Not used

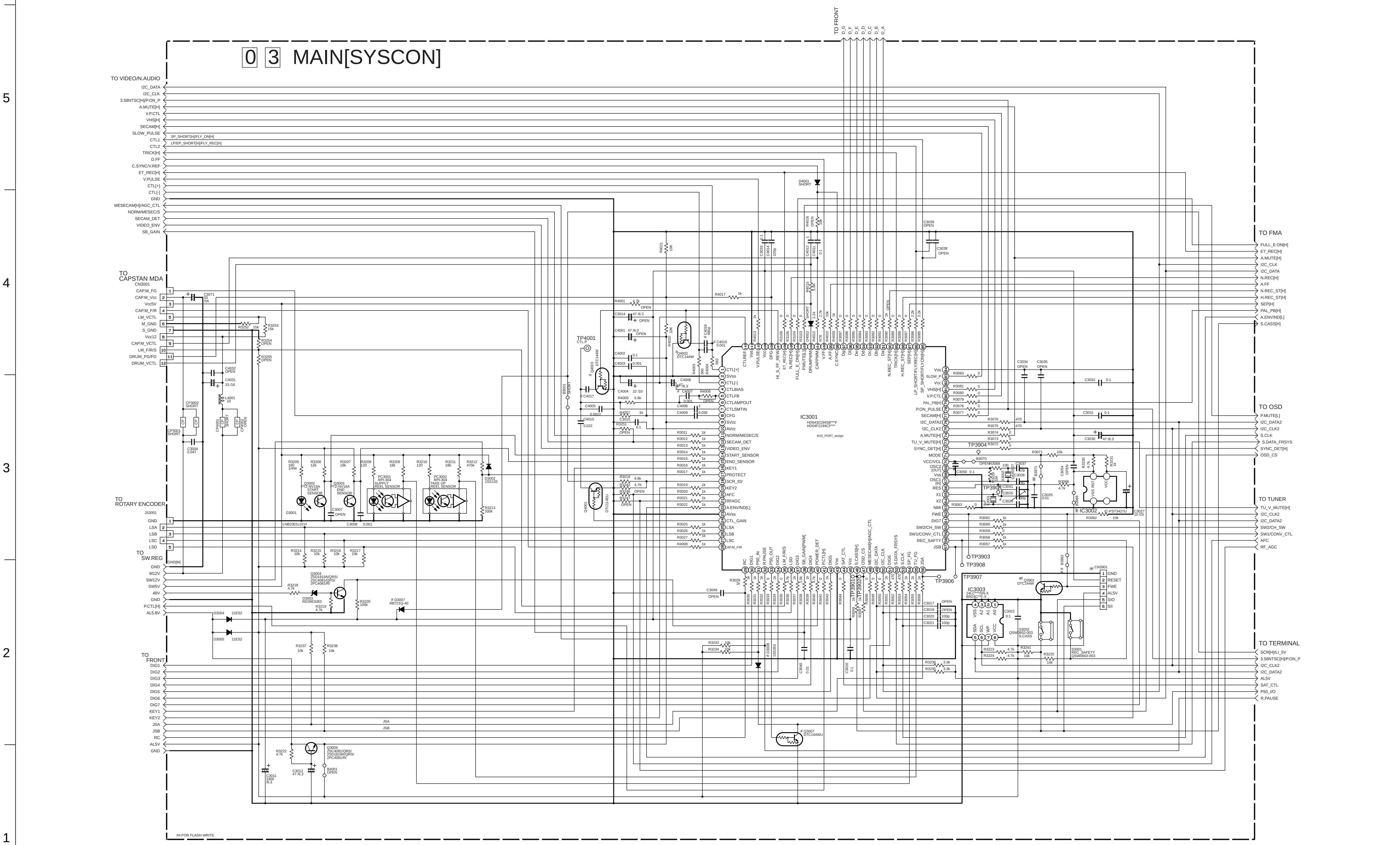
RF OUT	C2218	C2219	R2216	R2217
YES		○		
NO		×		

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20281001a_rev0.1

4.4 MAIN(SYSCON) SCHEMATIC DIAGRAM



0 3 MAIN[SYSCON]
TO VIDEO/N.AUDIO
I2C_DATA
I2C_CLK
3.58NTSC[H]/P.ON_P
A.MUTE[H]
V.P.CTL
VHS[H]
SECAM[H]
SLOW_PULSE
CTL1
CTL2
TRICK[H]
D.FF
C.SYNC/V.REF
ET_REC[H]
V.PULSE
CTL[+]
CTL[-]
GND
MESECAM[H]/AGC_CTL
NORM/MESEC/S
SECAM_DET
VIDEO_ENV
SB_GAIN
SP_SHORT[H]/FLY_ON[H]
LP/EP_SHORT[H]/FLY_REC[H]
TO CAPSTAN MDA
CN3001
CAP.M_FG
CAP.M_Vcc
Vcc5V
CAP.M_F/R
LM_VCTL
M_GND
S_GND
Vcc12
CAP.M_VCTL
LM_F/R/S
DRUM_PG/FG
DRUM_VCTL
TO ROTARY ENCODER
JS3001
GND
LSA
LSB
LSC
LSD
TO SW.REG
GND[M]
M12V
SW12V
SW5V
48V
P.CTL[H]
AL5.8V
TO FRONT
DIG1
DIG2
DIG3
DIG4
DIG5
DIG6
DIG7
KEY1
KEY2
JSA
JSB
RC
AL5V
TO FRONT
D_G
D_F
D_E
D_D
D_C
D_B
D_A
IC3001
HD6432194SB***F
HD64F2194CF***
8/25_PORT_assign
IC3002
IC-PST3427U
IC3003
24LC***/SN-X
BR24C**F-X
CN3901
GND
RESET
FWE
AL5V
SIO
SII
Q3002 PTZ-NV16A START SENSOR
Q3003 PTZ-NV16A END SENSOR
PC3001 RPI-304 SUPPLY REEL SENSOR
PC3002 RPI-304 TAKE UP REEL SENSOR
Q3004 2SD1819A/QRS/ 2SC4081/QRS/ 2PC4081/R/
Q3005 2SC4081/QRS/ 2SD1819A/QRS/ 2PC4081/R/
Q3007 DTC144WU
Q3901 DTC144W
Q4001 DTC114EU
Q4002 DTC144W
Q4003 DTC144W
S3001 REC_SAFETY QSW0602-003
S3002 QSW0602-003 S.CASS
TO FMA
FULL_E.ON[H]
ET_REC[H]
A.MUTE[H]
I2C_CLK
I2C_DATA
N.REC[H]
A.FF
N.REC_ST[H]
H.REC_ST[H]
SEP[H]
PAL_PB[H]
A.ENV/ND[L]
S.CASS[H]
TO OSD
P.MUTE[L]
I2C_DATA2
I2C_CLK2
S.CLK
S.DATA_FRSYS
SYNC_DET[H]
OSD_CS
TO TUNER
TU_V_MUTE[H]
I2C_CLK2
I2C_DATA2
SW2/CH_SW
SW1/CONV_CTL
AFC
RF_AGC
TO TERMINAL
SCR[H]/LI_5V
3.58NTSC[H]/P.ON_P
I2C_CLK2
I2C_DATA2
AL5V
SAT_CTL
P50_I/O
R.PAUSE
##:FOR FLASH WRITE

DIFFERENCE_TABLE

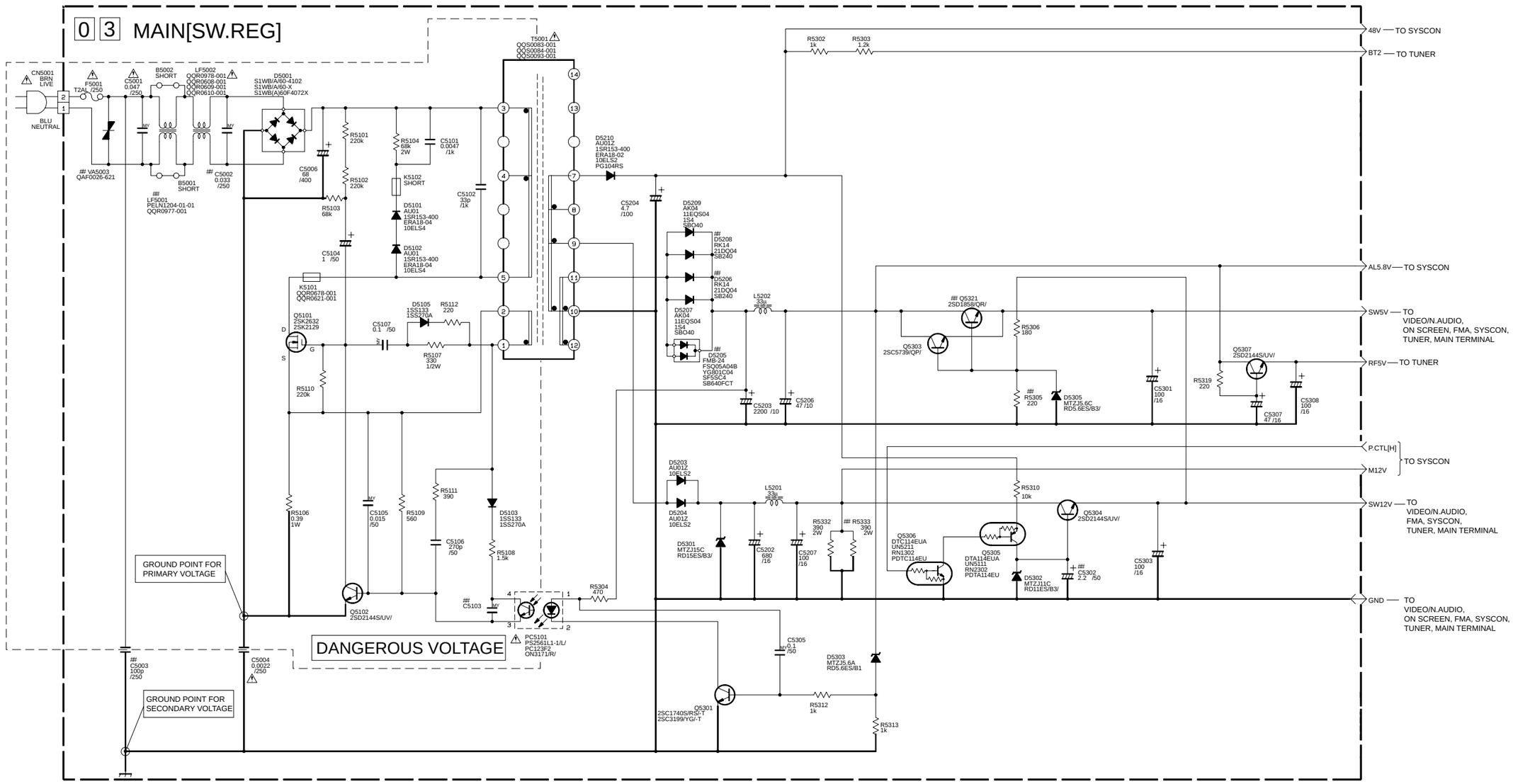
	R3032 R3233	R3012	R3080 R3083	R3104	D3007
S25EX/EK	O	X	O	O	X
S2EX/EK	X	X	O	X	X
S1EX	X	X	X	X	X
S1EF	X	O	X	X	X
S2EF	X	O	O	X	X
S25AG	O	X	O	O	O
S1AA	X	X	X	X	O

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10504001a_rev0

A B C D E F G H

4.5 MAIN(SW.REG) SCHEMATIC DIAGRAM



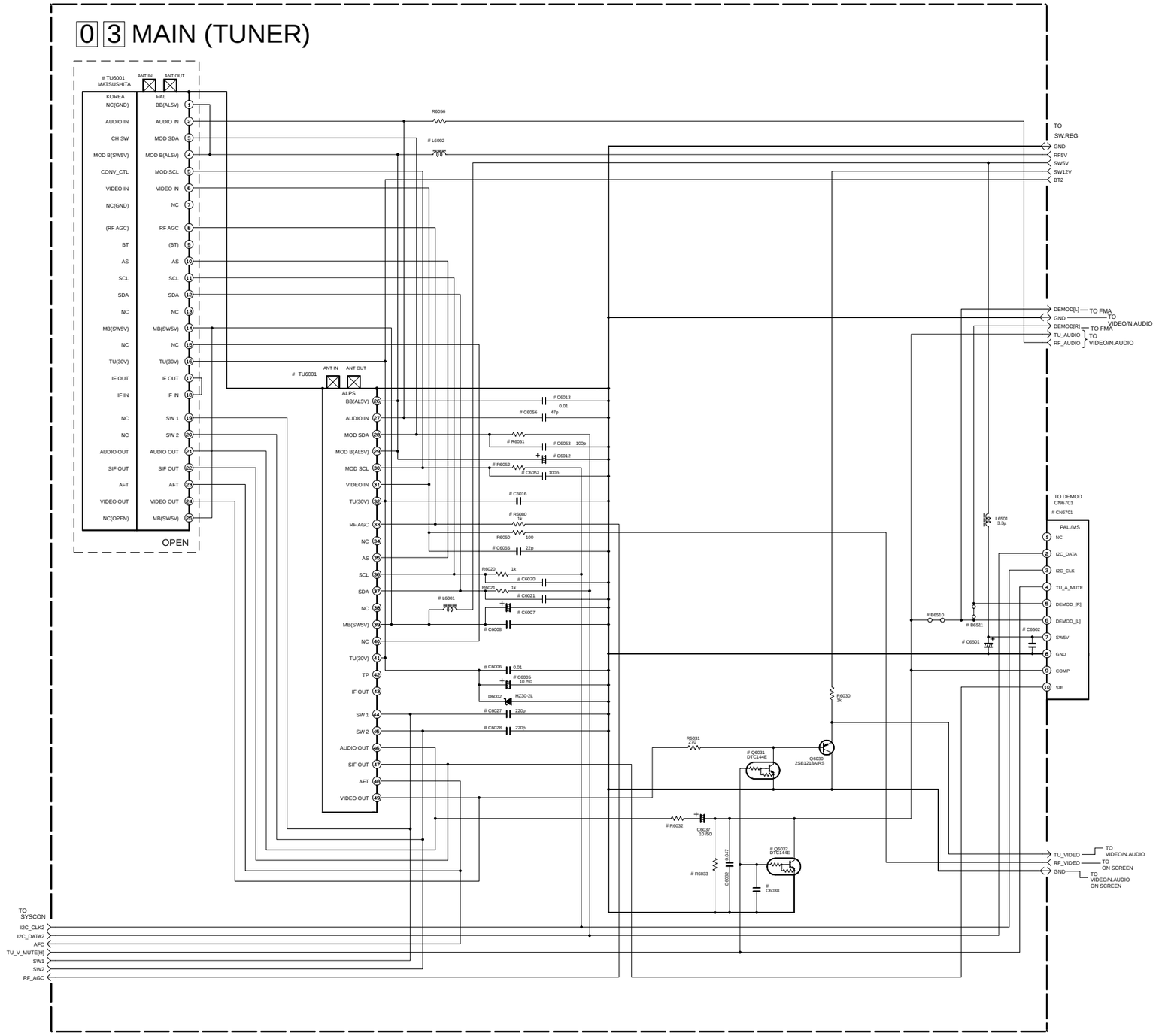
MARK ELEMENTS ARE NOT MOUNTED

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20236001a_rev0

4.6 MAIN(TUNER) SCHEMATIC DIAGRAM



DIFFERENCE TABLE ○ : Used × : Not used

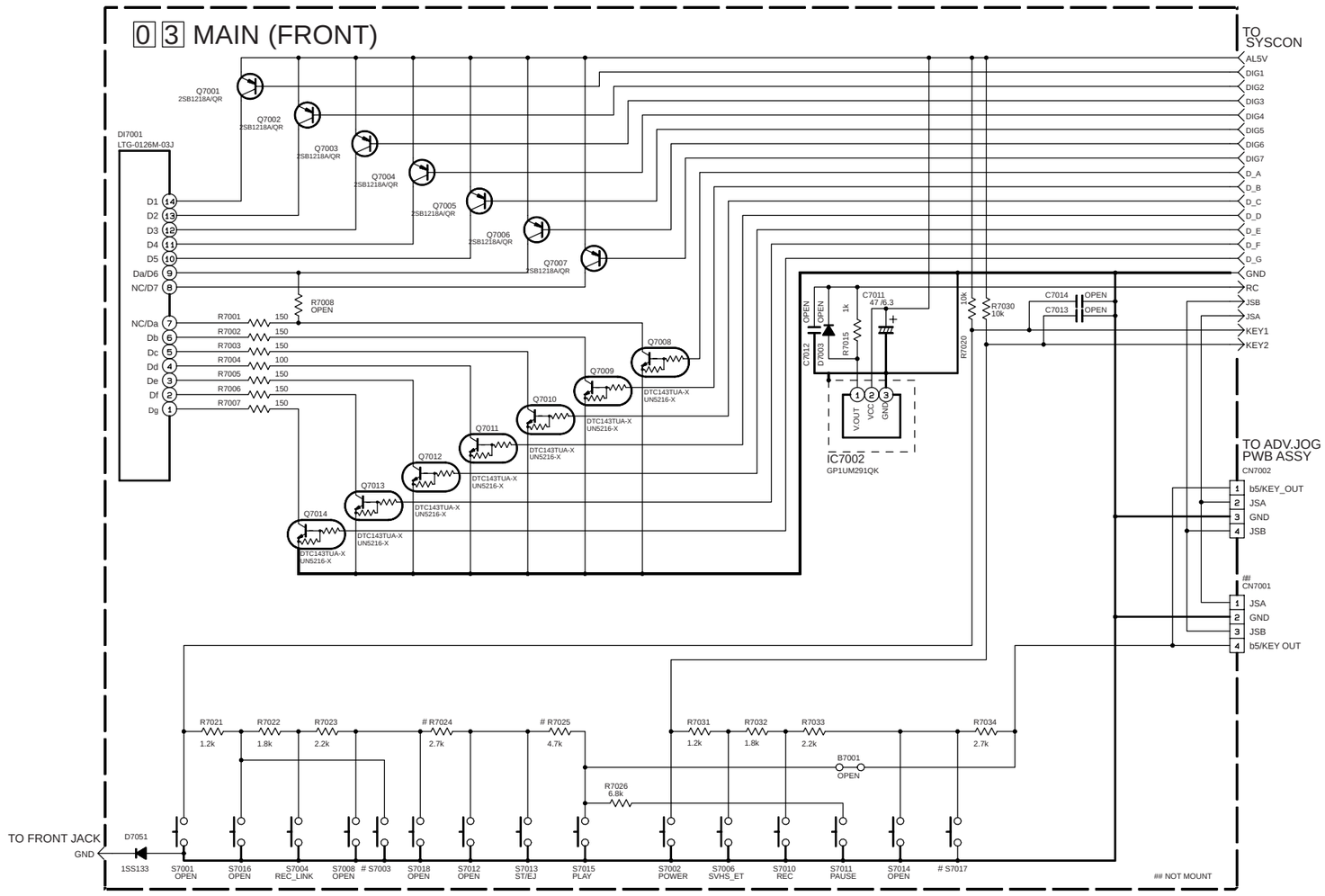
			EU/EK	FRANCE MS	EE
TUNER		TU6001	ALPS	LG	ALPS
			QAU0261	QAU0266	QAU0261
ATS+		R6080	1kΩ	1kΩ	×
SW5V		L6001	10μ	10μ	10μ
		C6007	×	×	×
		C6008	0.01	×	0.01
RFSV		C6012	×	×	×
		C6013	0.01	0.01	0.01
BT2	RF CONV.	C6016	×	×	×
	TUNER	C6005	×	×	×
		C6006	×	×	×
RF CONV.	I2C	R6051	100	×	100
		C6053	×	×	×
		R6052	100	×	100
		C6052	×	×	×
	AUDIO IN	R6056	100	×	100
		C6056	○	×	○
	VIDEO IN	R6050	○	×	○
		C6055	○	×	○
TUNER I2C		C6020	×	×	×
		C6021	×	×	×
SYSTEM SW		C6027	×	×	×
		C6028	×	×	×
AUDIO OUT		R6032	4.7k	18k	4.7k
		R6033	1.8k	18k	1.8k
		C6032	○	×	○
		Q6032	○	○	×
VIDEO OUT		Q6031	○	○	×
DEMOD PASS CON		C6501	10μ	10μ	10μ
		C6502	0.01	0.01	0.01

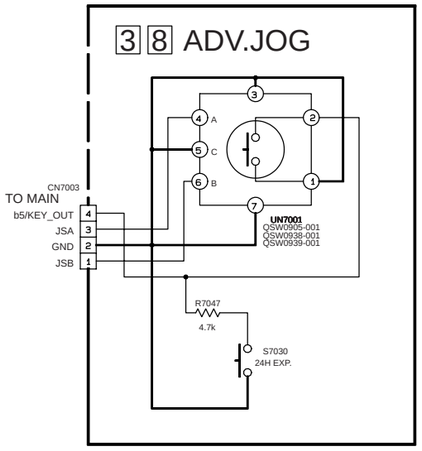
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10436001a_rev0

4.7 MAIN(FRONT) AND ADV.JOG SCHEMATIC DIAGRAMS





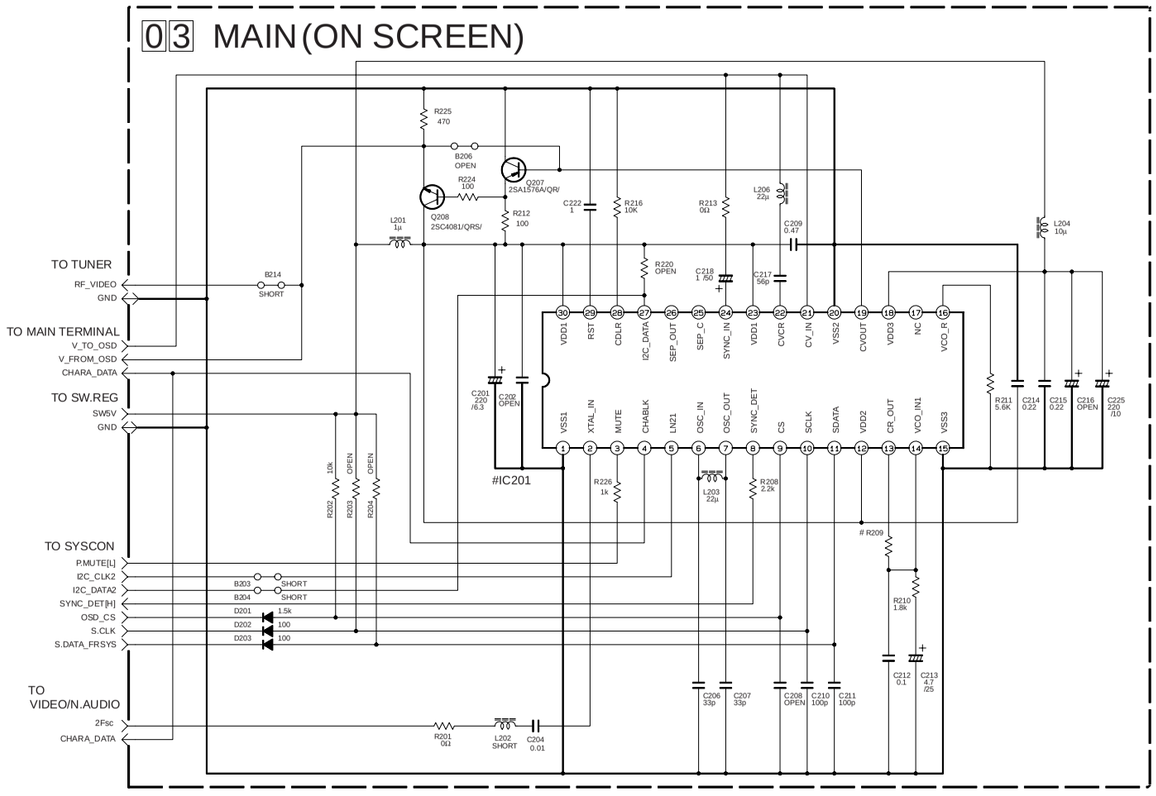
#DIFFERENCE TABLE 1

TOOL	Working No	S7001	S7002	S7003	S7004	S7006	S7008	S7010	S7011	S7012	S7013	S7014	S7015	S7016	S7017	S7018	S7030
400KA	S1/S2	-	POWER	TIMER	REC LINK	S-VHS ET	-	REC	PAUSE	-	ST/EJ	-	PLAY	-	SP/LP /EP	-	24H EXP
	S25	-	POWER	INSERT	REC LINK	S-VHS ET	-	REC	PAUSE	-	ST/EJ	-	PLAY	-	A.DUB	-	24H EXP

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20334001a_rev0

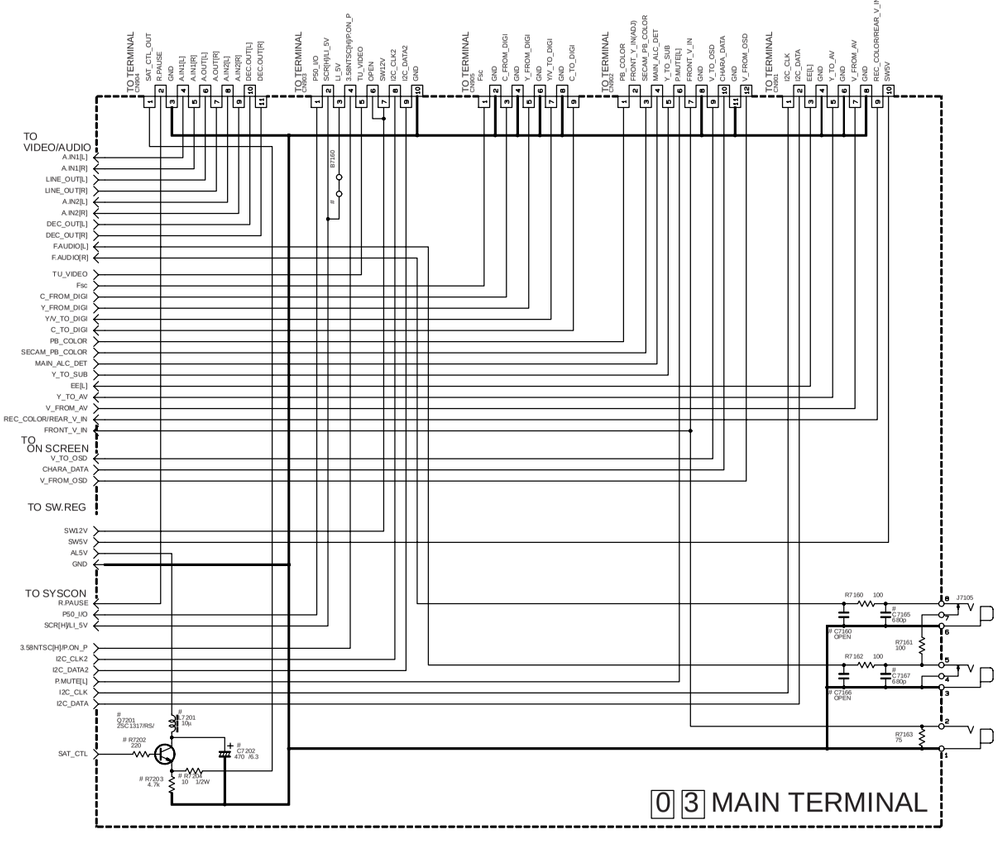


NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

DIFFERENCE TABLE

	IC201	R209
EE	LC74776-9791	6.8k
OTHER	LC74775-9750	5.1k



NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

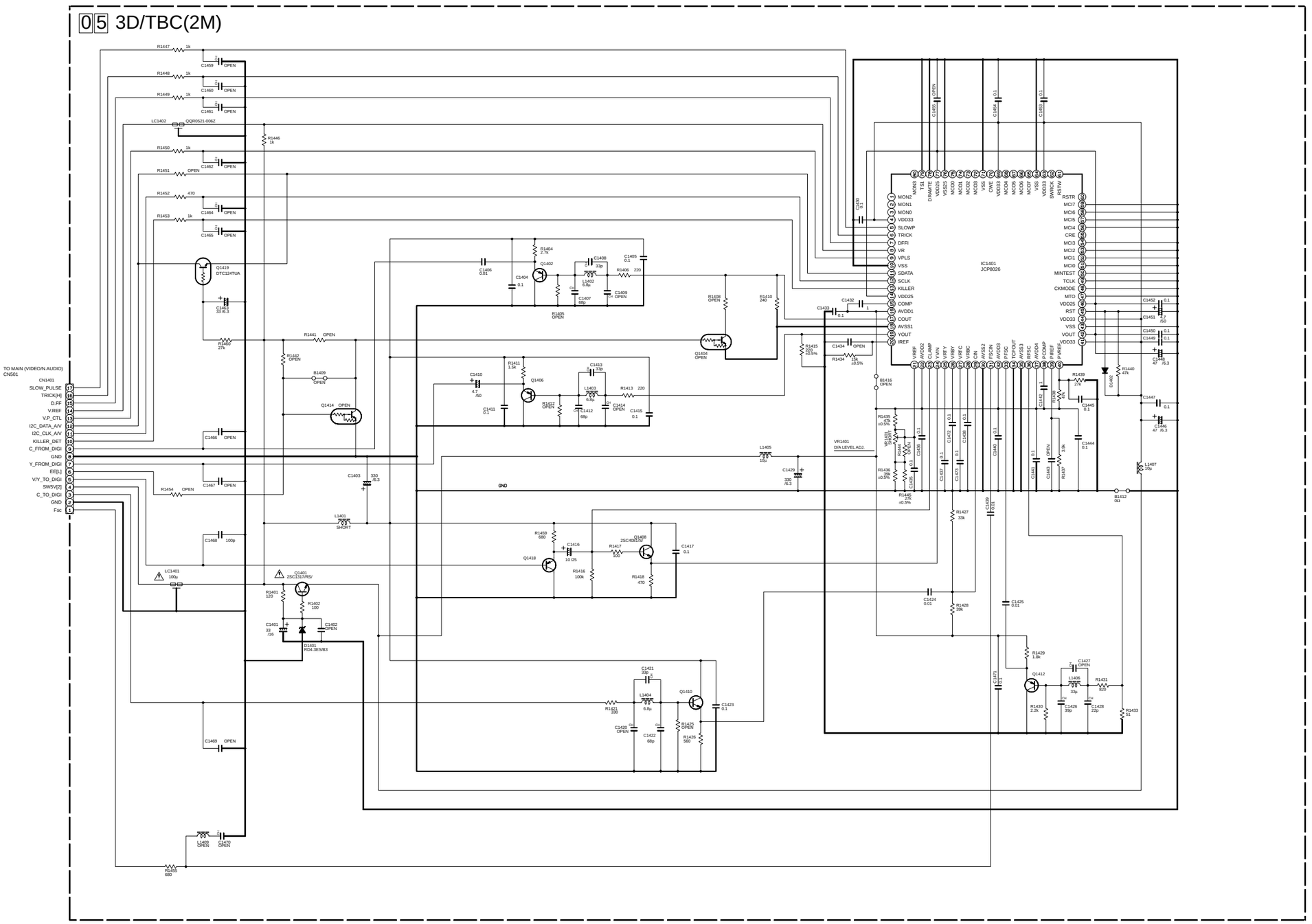
DIFFERENCE TABLE

SAT CTL	Q7201 R7202 R7203 R7204 C7202 L7201
YES	○
NO	×

CE	C7160 C7165 C7166 C7167
YES	○
NO	×

LITH BATT	B7160
YES	○
NO	×

4.10 3D/TBC (2M) SCHEMATIC DIAGRAM



NOTES:UNLESS OTHERWISE SPECIFIED.
- ALL RESISTANCE VALUES ARE IN OHMS.
- ALL INDUCTANCE VALUES ARE IN H.
- ALL CAPACITANCE VALUES ARE IN μF.

E ELECTROLYTIC
C CERAMIC
MY MYLER
N NON POLAR

ALL DIODES ARE 1SS133 OR 1N4148.
ALL FNP TYPE TRANSISTORS ARE 2SA1576A/QR/. OR 2PA1576R/.
ALL NPN TYPE TRANSISTORS ARE 2SC4081/QR/S/. OR 2PC4081/R/.

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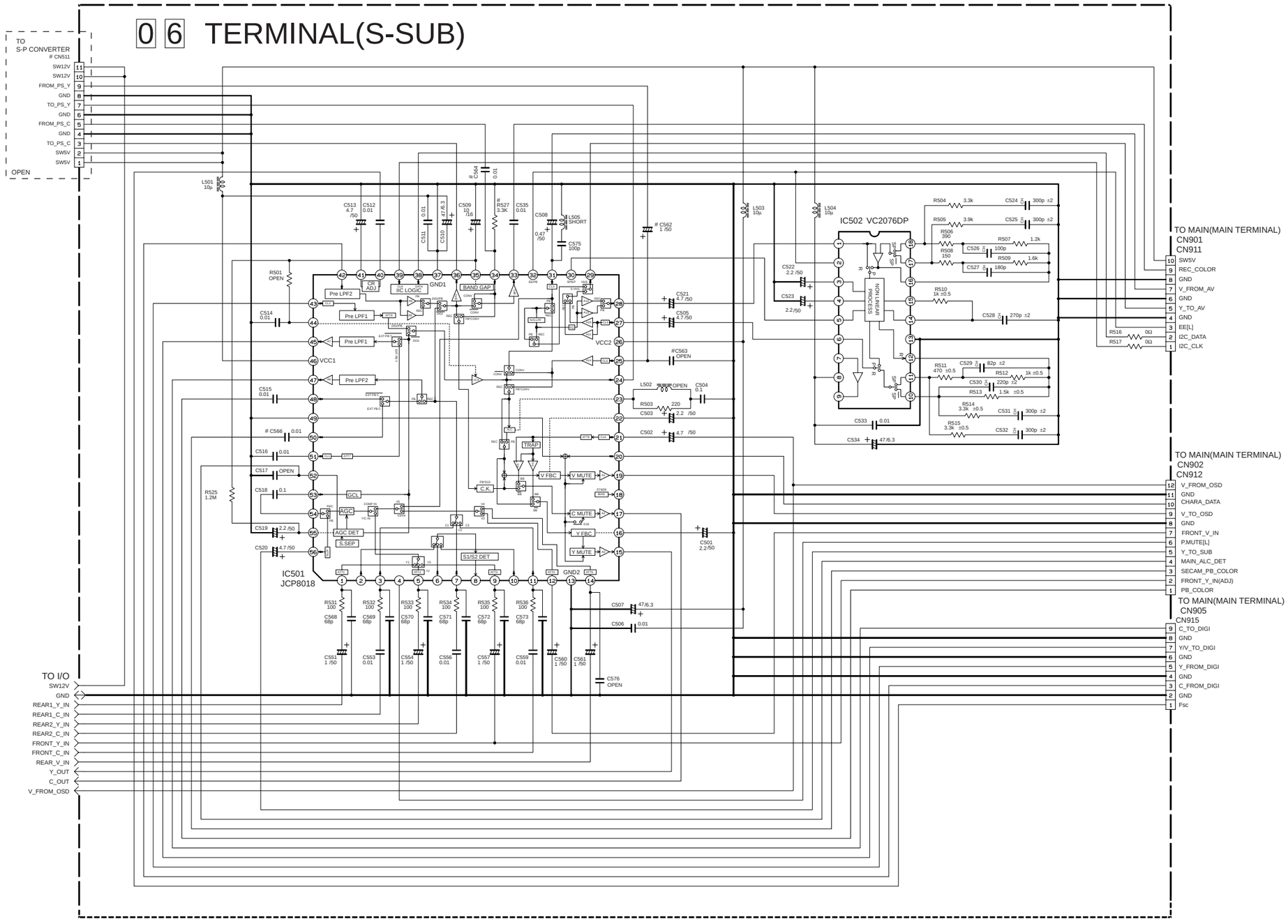
4.11 TERMINAL(S-SUB) SCHEMATIC DIAGRAM



O : Used
× : Not used

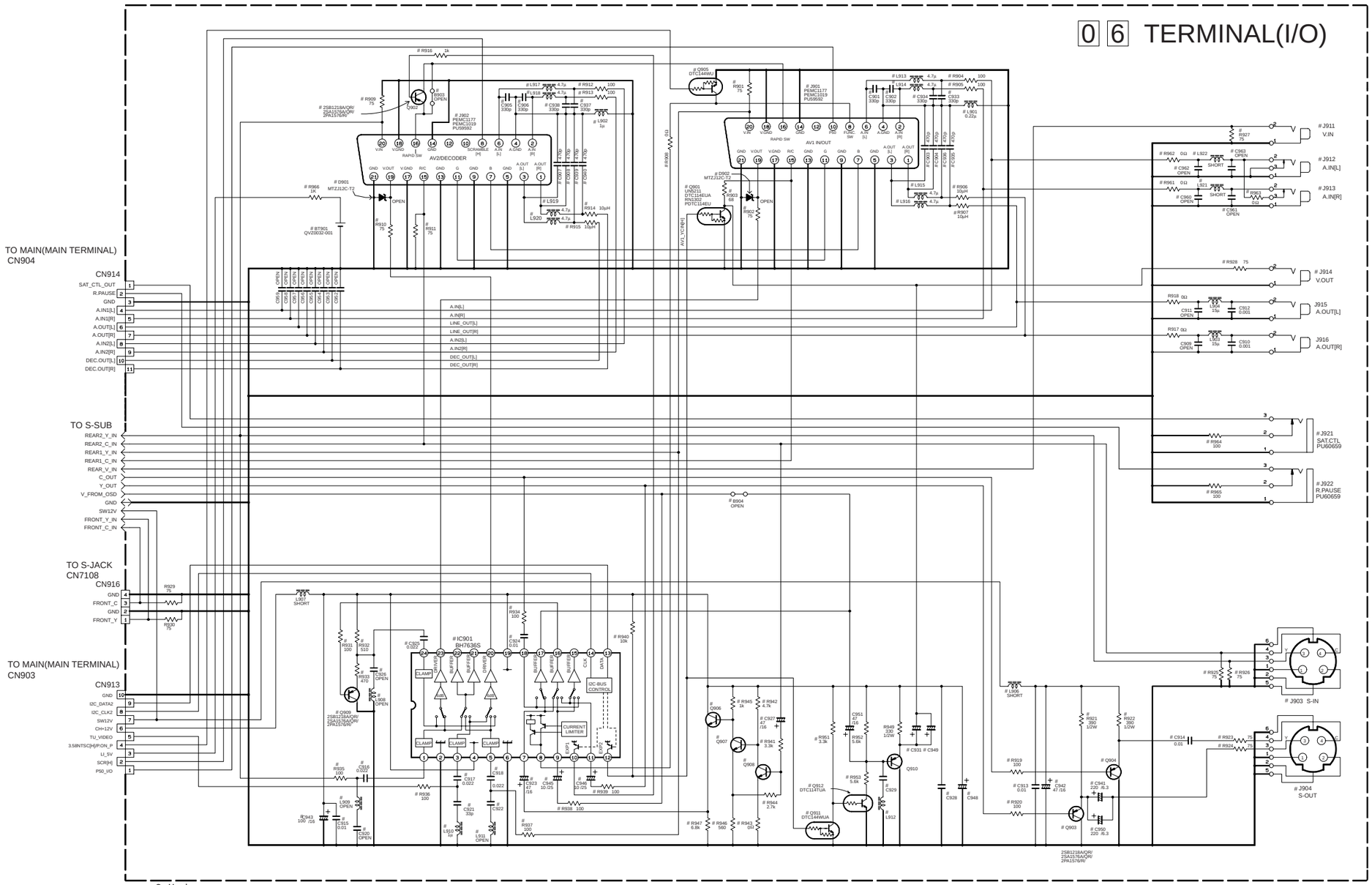
DIFFERENCE TABLE

	CN511 C562 C564 C566	C563 R527
MS	○	×
OTHERS	×	○

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20213001a_rev0

4.12 TERMINAL(I/O) SCHEMATIC DIAGRAM



○ : Used
× : Not used

DIFFERENCE TABLE

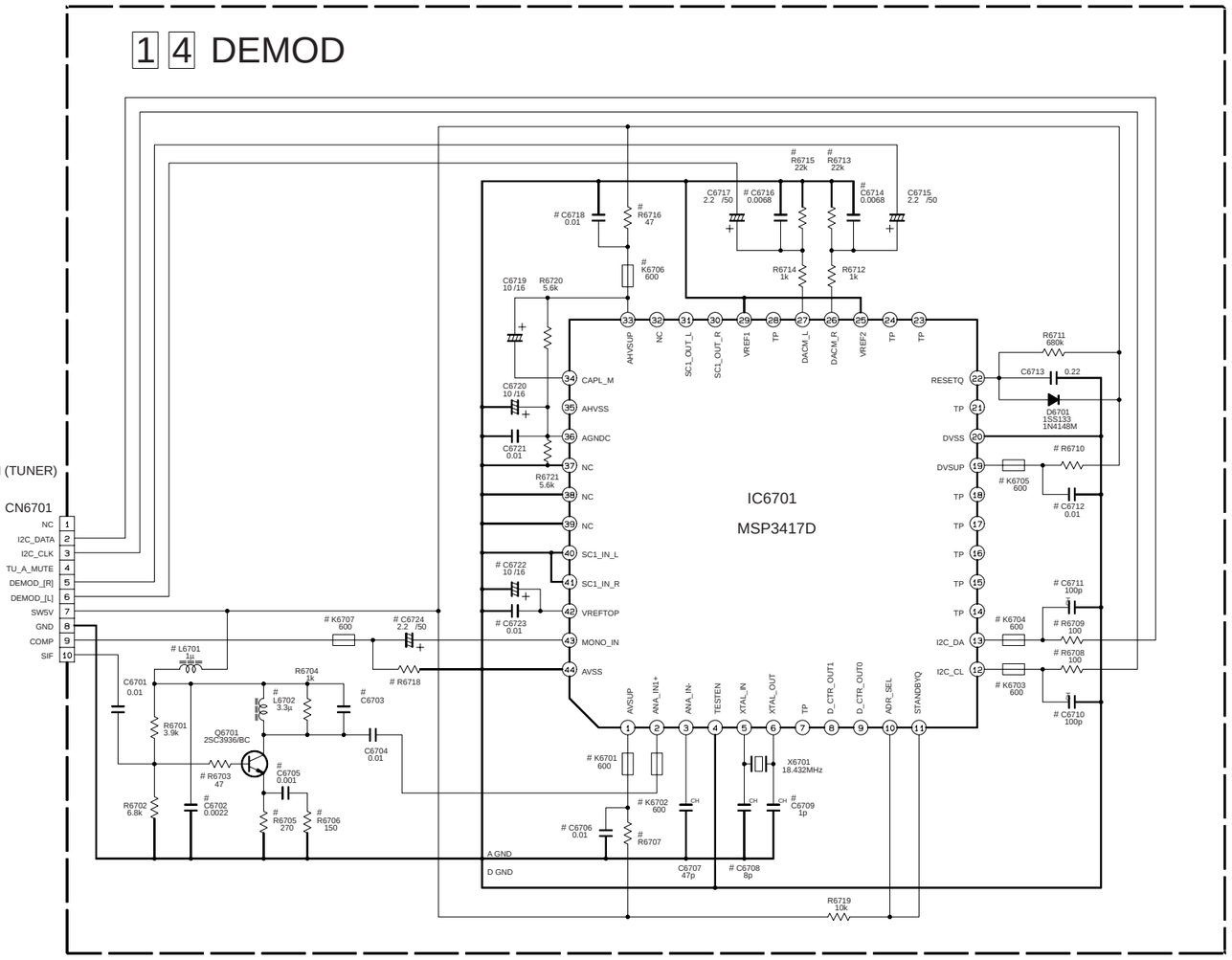
		CH+	REAR S-OUT	S-IN	REAR IN/OUT	SAT CTL	R.PAUSE	SW12VDECUP				CE/V-OUT DRIVER				BACK UP
		R901-R908, R909-R916, R931-R947, R951,R953 L901,L902 L908-L911, L913-L916, L917-L920, IC901 B903,B904 D901,D902 J901,J902	C901-C904, C905-C908, C916-C918, C920-C927, C933-C936, C937-C940, C945,C946 Q902 Q901,Q905 Q906-Q909, Q911,Q912	J904 R919-R924 C913,C914 C941,C942 C950 Q903,Q904 L906	J903 R925,R926	J911-J914 R927,R928 R961-R963 L921,L922 C960-C963	J921 R964	J922 R965	C915	C943	C928	C948	C929	L912	C931	C949	R966 BT901
EURO MODELS	WITHOUT REAR S-OUT	○	×	×	×	○	×	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	×
	WITH REAR S-OUT	○	○	×	×	○	○	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	×
ARC MODELS		×	○	○	○	×	×	OPEN	OPEN	0.01	47/16	5.6k	SHORT	220/6.3	220/6.3	○

ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/.
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/.

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

4.13 DEMODULATOR SCHEMATIC DIAGRAM



DIFFERENCE TABLE ○ : Used × : Not used

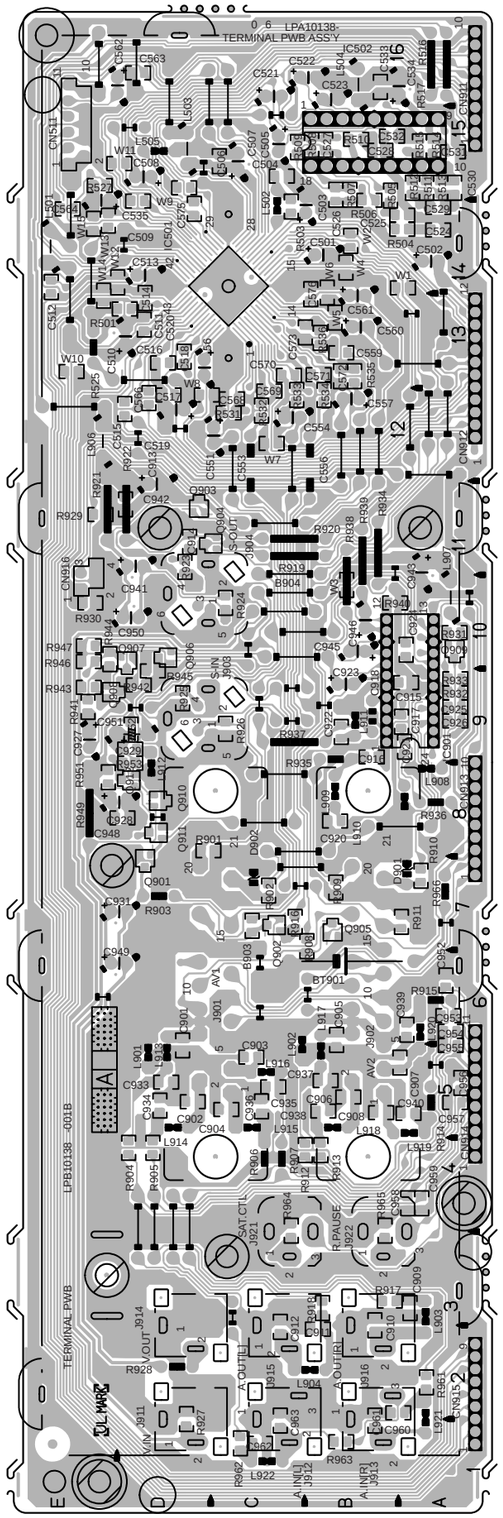
		EU/EK	MS	KR	MS	EX/EK	AA/AG		
DEMOD PWB ASSY		LPA10094-09*	LPA10094-10*	LPA10094-11*	LPA10094-12*	LPA10094-13*	LPA10094-14*		
PRE AMP	R6703	0	0	47	0	0	0		
	R6705	270	270	270	270	270	270		
	R6706	×	×	100	×	×	×		
	C6702	×	×	×	×	×	×		
	C6703	×	×	×	×	×	180p		
	C6705	×	×	0.001	×	×	×		
	L6701	SHORT	SHORT	SHORT	SHORT	SHORT	SHORT		
	L6702	×	×	3.3μ	×	×	3.3μ		
MONO IN	K6707	×	FE 600	×	FE 600	×	×		
	C6724	×	0.22/50	×	0.22/50	×	×		
	R6718	×	×	×	×	×	×		
I2C-BUS	R6708	FE 600	FE 600	FE 600	FE 600	10k	10k		
	R6709	FE 600	FE 600	FE 600	FE 600	1k	1k		
	K6703	10k	0	1k	1k	FE 600	FE 600		
	K6704	0	0	1k	1k	FE 600	FE 600		
	C6710,C6711	×	×	×	×	×	×		
ANALOG Vcc	R6707	FE 600	FE 600	FE 600	39	0	0		
	K6701	33	33	39	FE 600	FE 600	FE 600		
	C6706	×	×	×	×	×	×		
DIGITAL Vcc	R6710	FE 600	FE 600	FE 600	12	0	0		
	K6705	0	10	12	FE 600	FE 600	FE 600		
	C6712	×	×	×	×	×	×		
DAC Vcc	R6716	FE 600	FE 600	FE 600	47	47	47		
	K6706	47	47	47	FE 600	FE 600	FE 600		
	C6718	×	×	×	×	×	×		
X'TAL	C6708	7p	7p	7p	8p	7p	7p		
	C6709	3p	3p	3p	2p	3p	3p		
DAC OUT	R6713,R6715	12k	12k	×	×	○	○		
	C6714,C6716	0.0022	0.0068	0.0022	0.0068	0.0022	0.0022		
VREFTOP	C6722	×	×	×	×	×	×		
	C6723	0.01	0.01	0.001	0.01	0.01	0.01		

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20162001a_rev3.1

4.14 TERMINAL CIRCUIT BOARD

<06> TERMINAL
LPB10138-001B

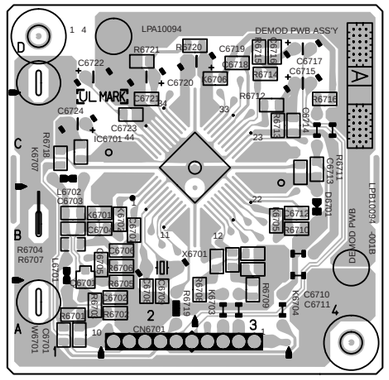


COMPONENT PARTS LOCATION GUIDE
<TERMINAL> LPB10138-001B

REF.NO.	LOCATION
CAPACITOR	
C501	A D 14B
C502	A D 14A
C503	A D 14B
C504	B C 15C
C505	A D 15C
C506	B C 15C
C507	A D 15C
C508	A D 15D
C509	A D 14E
C510	A D 13D
C511	B C 13D
C512	B C 14E
C513	A D 14D
C514	B C 13D
C515	B C 12D
C516	B C 13D
C517	B C 12D
C518	B C 13D
C519	A D 12D
C520	A D 13D
C521	A D 16C
C522	A D 16C
C523	A D 16B
C524	B C 14A
C525	B C 14A
C526	B C 15B
C527	B C 15B
C528	B C 15B
C529	B C 14A
C530	B C 15A
C531	B C 15A
C532	B C 15B
C533	B C 16B
C534	A D 16A
C535	B C 14D
C551	A D 12C
C553	A D 12C
C554	A D 12C
C556	A D 12B
C557	A D 12B
C559	B C 13B
C560	A D 13B
C561	A D 13B
C562	A D 16D
C563	B C 16D
C564	B C 14E
C566	B C 12D
C568	B C 12C
C569	B C 12C
C570	B C 13C
C571	B C 13B
C572	B C 13B
C573	B C 13B
C575	B C 14D
C576	B C 13B
C901	B C 5D
C902	B C 5D
C903	B C 5C
C904	B C 5C
C905	B C 6B
C906	B C 5B
C907	B C 5A
C908	B C 5B
C909	B C 3A
C910	B C 3B
C911	B C 2B
C912	B C 2C
C913	B C 11D
C914	B C 11D
C915	B C 9A
C916	B C 9B
C917	B C 9A
C918	A D 9B
C920	B C 8B
C921	B C 9A
C922	B C 9B
C923	A D 9B
C924	B C 10A
C925	B C 9A
C926	B C 9A
C927	A D 9E
C928	B C 8D
C929	B C 9D
C931	A D 7E
C933	B C 5D
C934	B C 5D
C935	B C 5C
C936	B C 5C
C937	B C 5B
C938	B C 5B
C939	B C 6A
C940	B C 5A
C941	A D 11D
C942	A D 11D
C943	A D 11A
C945	A D 10B
C946	A D 10B
C948	A D 8E
C949	A D 6E
C950	A D 10D
C951	A D 9E
C952	B C 6A
C953	B C 6A
C954	B C 6A
C955	B C 5A
C956	B C 5A
C957	B C 5A
C958	B C 4A
C959	B C 4A
C960	B C 2B
C961	B C 1B
C962	B C 1C
C963	B C 1C
CONNECTOR	
CN511	A D 15E
CN911	A D 15A
CN912	A D 12A
CN913	A D 7A
CN914	A D 4A
CN915	A D 1A
CN916	A D 10E
DIODE	
D901	A D 8A
D902	A D 7C
IC	
IC501	B C 14C
IC502	A D 15B
IC901	A D 9B
JACK	
J901	A D 6C
J902	A D 6B
J903	A D 9D
J904	A D 10D
J911	A D 2D
J912	A D 2C
J913	A D 2B
J914	A D 3D
J915	A D 3C
J916	A D 3B
J921	A D 4C
J922	A D 4B
COIL	
L501	A D 14E
L502	A D 14C
L503	A D 15D
L504	A D 16B
L505	A D 15D
L901	A D 5D
L902	A D 5C
L903	A D 3A
L904	A D 2B
L906	A D 12E
L907	A D 10A
L908	A D 8A
L909	A D 8B
L910	A D 8A
L911	A D 9B
L912	A D 8D
L913	A D 6D
L914	A D 5D
L915	A D 5C
L916	A D 5C
L917	A D 6B
L918	A D 5B
L919	A D 5B
L920	A D 5A
L921	A D 2A
L922	A D 1C
TRANSISTOR	
Q901	B C 7D
Q902	B C 7C
Q903	B C 11D
Q904	B C 11D
Q905	B C 7B
Q906	B C 10D
Q907	B C 10D
Q908	B C 9E
Q909	B C 10A
Q910	B C 8D
Q911	B C 8D
Q912	B C 8D
RESISTOR	
R501	B C 13D
R503	B C 14C
R504	B C 14A
R505	B C 15B
R506	B C 14B
R507	B C 15B
R508	B C 15B
R509	B C 15C
R510	B C 15B
R511	B C 15A
R512	B C 15A
R513	B C 15A
R514	B C 15A
R515	B C 15A
R516	A D 16A
R517	A D 16A
R525	A D 13E
R527	B C 15E
R531	B C 12C
R532	B C 12C
R533	B C 12C
R534	B C 12B
R535	B C 13B
R536	B C 13B
R901	B C 8D
R902	B C 7C
R903	A D 7D
R904	B C 4D
R905	B C 4D
R906	A D 4C
R907	A D 4C
R908	B C 7B
R909	B C 7B
R910	B C 7A
R911	B C 7A
R912	B C 4B
R913	B C 4B
R914	A D 5A
R915	A D 6A
R916	B C 7C
R917	B C 3B
R918	B C 3B
R919	A D 11B
R920	A D 11B
R921	A D 11E
R922	A D 11D
R923	B C 11D
R924	B C 10C
R925	B C 9D
R926	B C 9C
R927	B C 2D
R928	A D 2D
R929	B C 11E
R930	B C 10E
R931	B C 10A
R932	B C 9A
R933	B C 9A
R934	A D 11B
R935	A D 9B
R936	A D 8A
R937	A D 9B
R938	A D 11B
R939	A D 11B
R940	B C 10B
R941	B C 9E
R942	B C 9D
R943	B C 9E
R944	B C 10E
R945	B C 9D
R946	B C 10E
R947	B C 10E
R949	A D 8E
R951	B C 8E
R952	B C 9D
R953	B C 8D
R961	B C 2A
R962	B C 1C
R963	B C 1B
R964	B C 4C
R965	B C 4B
R966	A D 7A
OTHER	
BT901	A D 6B

4.15 DEMODULATOR CIRCUIT BOARD

<14> DEMODULATOR
LPB10094-001C



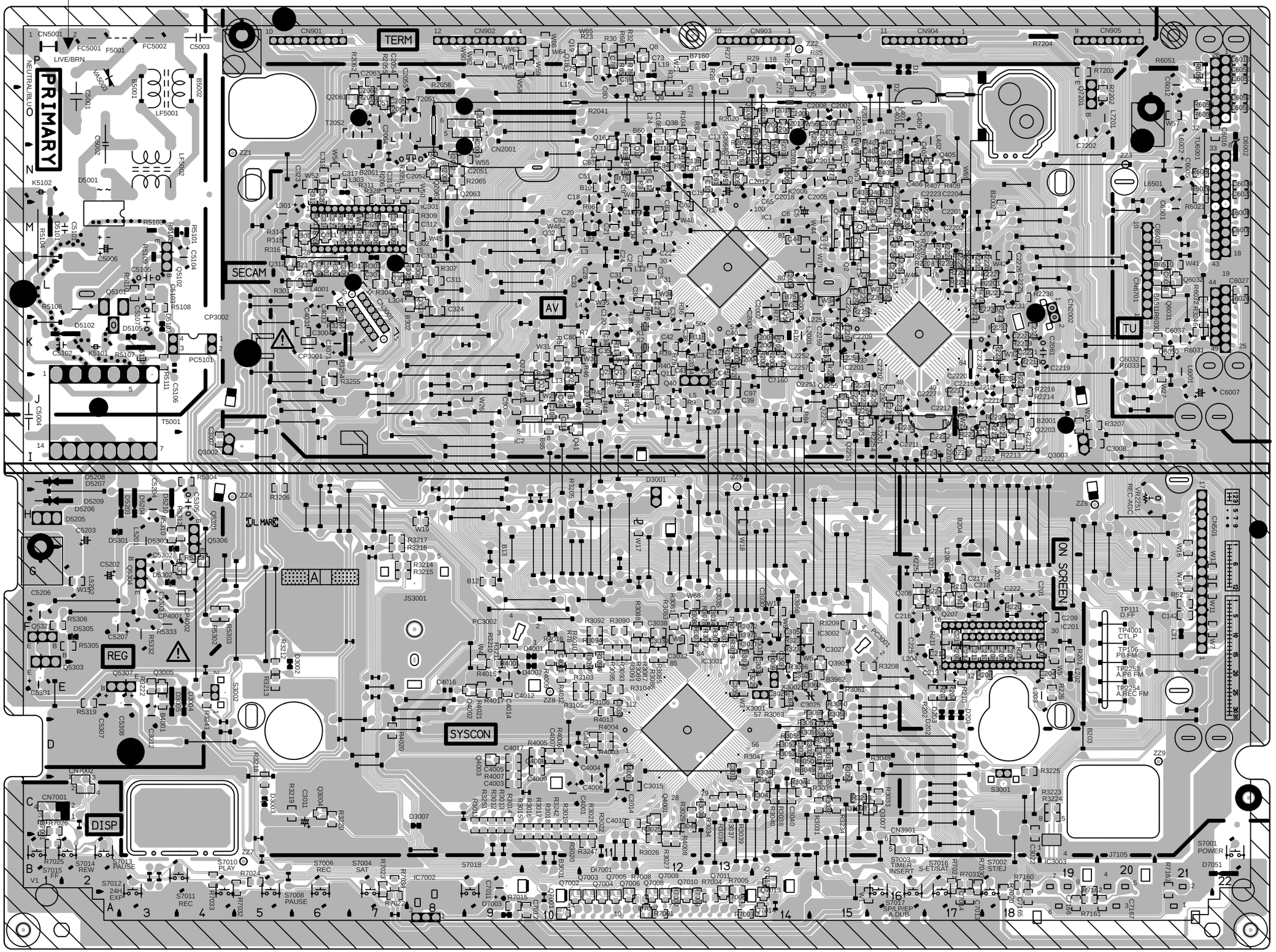
COMPONENT PARTS LOCATION GUIDE
<DEMODULATOR> LPB10094-001C

REF.NO.	LOCATION
CAPACITOR	
C1501	A D 4C
C1502	A D 3D
C1503	A D 4D
C1504	A D 4C
C1505	A D 3D
C1506	A D 3C
C1507	A D 2C
C1508	A D 1D
C1509	A D 2C
C1510	A D 1B
C1511	A D 1A
C1512	A D 2A
C1513	A D 2B
C1514	A D 2A
C1515	A D 3B
C1516	A D 3C
C1517	A D 3B
C1518	A D 3A
C1519	A D 3B
C1520	A D 3A
C1521	A D 2C
CONNECTOR	
CN1501	A D 3A
IC	
IC1501	B C 2C
TRANSISTOR	
Q1501	A D 3B
Q1502	A D 3B
RESISTOR	
R1501	A D 4C
R1502	A D 2C
R1503	A D 2C
R1504	A D 2B
R1505	A D 2B
R1506	A D 2B
R1507	A D 2B
R1508	A D 3B
R1509	A D 3B
R1510	A D 4B
R1511	A D 3A
R1514	A D 2B
R1515	A D 2C
R1517	A D 2C

4.16 MAIN CIRCUIT BOARD [FOR HR-S8960AG]

DANGEROUS VOLTAGE

<03>MAIN
LPB10170-003A



COMPONENT PARTS LOCATION GUIDE <MAIN> LPB10170-003A

REF.NO.	LOCATION
CAPACITOR	
C1	B C 15L
C2	B C 15M
C3	B C 15M
C4	B C 16M
C5	A D 14M
C6	A D 14M
C7	B C 15N
C8	B C 15N
C9	A D 11M
C10	B C 13N
C11	B C 13N
C12	B C 12N
C13	B C 13N
C14	B C 12N
C15	B C 12N
C16	B C 12N
C17	A D 12M
C18	A D 11N
C19	A D 11M
C20	A D 11M
C21	B C 11M
C22	A D 12M
C23	B C 12M
C24	A D 11L
C25	B C 12L
C26	B C 11L
C27	B C 12L
C28	A D 11L
C29	B C 11K
C30	B C 12L
C31	A D 11L
C32	B C 12L
C33	A D 11L
C34	B C 11K
C35	B C 11K
C36	A D 12K
C37	A D 12K
C38	A D 13K
C39	B C 13J
C40	A D 13K
C41	B C 12K
C42	B C 12K
C43	B C 13J
C44	B C 14M
C45	B C 13K
C51	A D 11N
C53	B C 12K
C59	B C 11P
C60	A D 11P
C61	B C 13N
C62	B C 12M
C63	B C 11N
C64	B C 10J
C65	A D 14N
C69	B C 16M
C70	B C 16M
C72	B C 14P
C73	B C 12P
C74	B C 12O
C75	B C 11P
C78	B C 11P
C80	B C 10K
C81	B C 10K
C84	B C 12N
C87	B C 12M
C88	B C 11M
C90	B C 9J
C92	B C 11M
C97	B C 13J
C99	B C 13J
C103	B C 14P
C106	B C 12O
C108	B C 10J
C110	B C 12N
C114	B C 10J
C120	A D 11K
C125	B C 13K
C136	B C 12N
C142	B C 21F
C201	A D 18F
C202	B C 19F
C204	B C 19E
C206	B C 18F
C207	B C 18F
C208	B C 18F
C209	B C 19F
C210	B C 18F
C211	B C 17F
C212	B C 17F
C213	A D 17E
C214	B C 17F
C215	B C 17F
C216	A D 16F
C217	B C 17G
C218	A D 17G
C222	A D 18G
C225	A D 16F
C301	B C 6L
C302	B C 6L
C303	B C 6M
C304	B C 7M
C305	B C 6L
C306	B C 6L
C307	B C 7L
C308	B C 7M
C309	B C 7M
C310	B C 8M
C311	B C 8L
C312	B C 8M
C313	B C 7N
C314	B C 7M
C315	B C 7N
C316	B C 7M
C317	B C 6N
C318	B C 6M
C319	B C 6N
C320	B C 6N
C321	B C 6M
C322	B C 7M
C323	A D 6N
C324	B C 8L
C401	B C 16O
C402	B C 16N
C403	B C 15N
C404	B C 17N
C405	B C 16N
C406	B C 16N
C407	B C 16N
C409	A D 16O
C2001	A D 13K
C2002	A D 14L
C2003	A D 14L
C2004	B C 14L
C2005	A D 15N
C2006	B C 15O
C2007	A D 15O
C2008	A D 15O
C2009	B C 14O
C2010	B C 15N
C2011	A D 14N
C2012	A D 13N
C2013	B C 15N
C2014	B C 12K
C2016	B C 15O
C2017	B C 14O
C2018	B C 14N
C2051	B C 8N
C2052	A D 7N
C2053	B C 7O
C2054	B C 7P
C2055	A D 8O
C2061	A D 19K
C2062	B C 7O
C2063	B C 7P
C2064	A D 7O
C2201	A D 17M
C2202	A D 17M
C2203	A D 17L
C2204	A D 17M
C2205	A D 16M
C2206	A D 16M
C2207	B C 16M
C2208	B C 15K
C2209	A D 15K
C2210	A D 16K
C2211	A D 16I
C2212	A D 16J
C2213	B C 16J
C2214	A D 18J
C2215	A D 17J
C2216	A D 17J
C2217	B C 17J
C2218	A D 18J
C2219	A D 18K
C2220	A D 18J
C2221	B C 18K
C2222	B C 17I
C2223	B C 16M
C2224	B C 15J
C2225	A D 18L
C2226	A D 18L
C2227	A D 16J
C2228	B C 18K
C2229	B C 18K
C2230	A D 18K
C2231	A D 18K
C2232	B C 16J
C2233	B C 16J
C2251	B C 16M
C2252	B C 16M
C2253	B C 16L
C2254	A D 15L
C2255	B C 15L
C2256	B C 15L
C2257	B C 15K
C2258	B C 15K
C2259	A D 15K
C2261	B C 16L
C2262	B C 16L
C3004	B C 6K
C3007	B C 4I
C3008	B C 19I
C3011	A D 6C
C3012	A D 3E
C3014	A D 11C
C3015	B C 11C
C3016	B C 13D
C3017	B C 15D
C3018	B C 15D
C3020	B C 15D
C3021	B C 14D
C3022	B C 18C
C3024	B C 14E
C3025	A D 15E
C3026	B C 14E
C3027	A D 14F
C3030	A D 14F
C3031	B C 14F
C3032	B C 12F
C3033	B C 11E
C3034	B C 13F
C3035	B C 13F
C3036	B C 14E
C3037	B C 14F
C3038	B C 12F
C3039	B C 12F
C3040	B C 14C
C3041	B C 14E
C3049	B C 12C
C3050	B C 13E
C3054	B C 14F
C3071	A D 6K
C4001	A D 10C
C4002	B C 11D
C4003	B C 9C
C4004	A D 11D
C4005	B C 9D
C4006	A D 11C
C4007	B C 10D
C4008	B C 10D
C4009	B C 10D
C4010	B C 11C
C4011	B C 10F
C4012	A D 9E
C4014	B C 9E
C4015	B C 11D
C4016	A D 8E
C4017	B C 9D
C4031	A D 6L
C4032	B C 6L
C5001	A D 2P
C5002	A D 2N
C5003	A D 4P
C5004	A D 1J
C5006	A D 2M
C5101	A D 2M
C5102	A D 1K
C5103	B C 3L
C5104	A D 4M
C5105	A D 3L
C5106	A D 3J
C5107	A D 3L
C5202	A D 2G
C5203	A D 2H
C5204	A D 3H
C5206	A D 1F
C5207	A D 3F
C5301	A D 1E
C5302	A D 3G
C5303	A D 3G
C5305	A D 4H
C5307	A D 2E
C5308	A D 3E
C6005	A D 21N
C6006	B C 22M
C6007	A D 21J
C6008	B C 22M
C6012	A D 21O
C6013	B C 22P
C6016	B C 22O
C6020	B C 22N
C6021	B C 22N
C6027	B C 22L
C6028	B C 22L
C6032	B C 20K
C6037	A D 21K
C6038	B C 21L
C6052	B C 22O
C6053	B C 22P
C6055	B C 22O
C6056	B C 22P
C6501	A D 21M
C6502	B C 21M
C7011	A D 9A
C7012	B C 10A
C7013	B C 17A
C7014	B C 17A
C7160	B C 14K
C7165	B C 18A
C7166	B C 19A
C7167	B C 20A
C7202	A D 19O
CONNECTOR	
CN1	A D 16M
CN501	A D 21F
CN901	A D 6P
CN902	A D 10P
CN903	A D 14P
CN904	A D 17P
CN905	A D 20P
CN2001	A D 9O
CN2002	A D 19L
CN3001	A D 7L
CN3901	A D 16B
CN5001	A D 1P
CN6701	A D 20L
CN7001	A D 1C
CN7002	A D 2C
DIODE	
D1	A D 16P
D2	A D 16P
D4	A D 11M
D5	A D 12N
D201	A D 17E
D202	A D 17E
D203	A D 17E
D2201	A D 17I
D2251	A D 15J
D3001	A D 12H
D3002	A D 5E
D3003	A D 5C
D3004	A D 4E
D3005	A D 3E
D3007	A D 7C
D3008	B C 15C
D4001	A D 10F
D4002	A D 10E
D5001	B C 2M
D5101	A D 1M
D5102	A D 2K
D5103	A D 3K
D5105	A D 3K
D5203	A D 3I
D5204	A D 3I
D5205	A D 1H
D5206	A D 2H
D5207	A D 2I
D5208	A D 2I
D5209	A D 2H
D5210	A D 3I
D5301	A D 2H
D5302	A D 4G
D5303	A D 4G
D5305	A D 2F
D6002	A D 22N
D7003	A D 9A
D7051	A D 22B
FUSE	
F5001	A D 2P
IC	
IC1	B C 13L
IC2	B C 10J
IC201	A D 19E
IC301	A D 6M
IC2201	B C 16K
IC3001	B C 12D
IC3002	B C 14F
IC3003	B C 19B
IC7002	A D 8A
COIL	
K2001	B C 15O
K2002	B C 15O
K2003	B C 9N
K2004	B C 9O
K2005	B C 14N
K2006	B C 14N
K2251	B C 16L
K2252	B C 16M
K2253	B C 16M
K5101	A D 2K
K5102	A D 1N
L1	A D 15M
L2	A D 12N
L3	A D 10M
L4	A D 11L
L5	A D 13J
L12	A D 12L
L13	A D 10J
L15	A D 11P
L18	A D 14P
L19	A D 12P
L20	A D 12N
L22	A D 11M
L24	A D 12O
L27	A D 10J
L28	A D 12N
L31	A D 21F
L201	A D 18G
L202	A D 19E
L203	A D 19E
L204	A D 17E
L206	A D 17G
L301	A D 6M
L302	A D 7M
L303	A D 7N
L304	A D 8L
L401	A D 16N
L402	A D 17O
L2001	A D 14K
L2201	A D 16J
L2251	A D 14L
L2252	A D 15K
L4001	A D 6L
L5201	A D 3H
L5202	A D 2G
L6001	A D 21J
L6002	A D 21O
L6501	A D 21N
L7201	A D 20O
TRANSISTOR	
Q1	B C 15M
Q2	B C 15M
Q3	B C 15M
Q4	B C 15M
Q5	B C 15P
Q7	B C 13P
Q8	B C 12P
Q9	B C 12O
Q10	B C 11K
Q11	B C 12J
Q14	B C 12O
Q16	B C 11O
Q17	B C 12N
Q18	B C 10P
Q19	B C 11P
Q21	B C 10J
Q22	B C 10J
Q23	B C 10J
Q24	B C 12K
Q25	B C 11K
Q32	B C 10M
Q38	B C 12O
Q40	B C 12J
Q41	B C 10J
Q50	B C 14L
Q207	B C 17G
Q208	B C 16G
Q301	B C 7L
Q302	B C 6M
Q303	B C 8L
Q311	B C 6M
Q312	B C 5L
Q401	B C 16N
Q402	B C 16N
Q403	B C 16N
Q404	B C 16N
Q405	B C 17N
Q2001	B C 14O
Q2002	B C 14O
Q2003	B C 14N
Q2004	B C 13O
Q2051	B C 7O
Q2052	B C 14N
Q2053	B C 13N
Q2054	B C 13O
Q2055	B C 14N
Q2061	B C 7O
Q2062	B C 8N
Q2063	B C 8N
Q2201	B C 18I
Q2202	B C 17I
Q2203	B C 18J
Q2204	B C 18J
Q2251	B C 15I
Q2252	B C 15J
Q2253	B C 15J
Q2254	B C 15J
Q2255	B C 15J
Q3002	A D 5I
Q3003	A D 19I
Q3004	B C 6C
Q3005	B C 3E
Q3007	B C 16C
Q3901	B C 15E
Q4001	B C 12C
Q4002	B C 9E
Q4003	B C 9D
Q5101	A D 2L
Q5102	A D 3M
Q5301	A D 4G
Q5303	A D 1F
Q5304	A D 3G
Q5305	B C 4G
Q5306	B C 4G
Q5307	A D 3E
Q5321	A D 1F
Q6030	B C 21K
Q6031	B C 21L
Q6032	B C 21L
Q7001	B C 10A
Q7002	B C 10A
Q7003	B C 11A
Q7004	B C 11A
Q7005	B C 11A
Q7006	B C 11A
Q7007	B C 12A
Q7008	B C 12A
Q7009	B C 12A
Q7010	B C 12A
Q7011	B C 13A
Q7012	B C 14B
Q7013	B C 14A
Q7014	B C 14A
Q7201	A D 19P
RESISTOR	
R1	B C 13M
R2	B C 13N
R3	B C 12N
R5	B C 10K
R6	B C 12L
R7	B C 11K
R8	B C 12J
R9	B C 12J
R10	A D 14K
R21	B C 16M
R22	B C 15M
R23	B C 11P
R25	B C 14P
R26	B C 14P
R27	B C 13P
R28	B C 13P
R29	B C 13P
R30	B C 11P
R31	B C 12O
R32	B C 11P
R33	B C 11N
R34	B C 11N
R35	B C 11N
R36	B C 12K
R38	B C 11K
R39	B C 12K
R40	B C 12K
R41	B C 11J
R42	B C 11J
R43	B C 11J
R46	B C 10K
R48	B C 11J
R49	B C 10K
R50	B C 10J
R51	B C 11J
R52	B C 21G
R65	B C 11P
R66	B C 11M
R68	B C 11P
R71	B C 14L
R75	B C 11N
R76	B C 11P
R77	B C 15N
R78	B C 10F
R79	B C 12K
R84	B C 14J
R85	B C 15P
R88	B C 12J
R90	B C 12N
R93	B C 12O
R104	B C 12O
R117	B C 11K
R118	B C 13K
R201	B C 19F
R202	B C 17E
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R4017	B C 9E
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R5103	A D 3M
R5104	A D 1L
R5106	A D 2L
R5107	A D 3K
R5108	B C 3L
R5109	A D 3M
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R5111	B C 3K
R5112	B C 3K
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R5304	B C 4I
R5305	B C 2F
R5306	B C 1F
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R6056	B C 21P
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R7163	B C 21B
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R7203	B C 19P
R7204	A D 19P
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S3002	A D 4E
S7001	A D 22B
S7002	A D 18B
S7003	A D 16B
S7004	A D 7B
S7006	A D 6B
S7008	A D 5B
S7010	A D 4B
S7011	A D 4B
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S7013	A D 2B
S7014	A D 2B
S7015	A D 1B
S7016	A D 17B
S7017	A D 16B
S7018	A D 9B
TEST POINT	
TP106	A D 19E
TP111	A D 19F
TP2253	A D 19E
TP2254	A D 19E
TP3901	B C 14D
TP3902	B C 13D
TP3903	B C 15E
TP3904	B C 13E
TP3905	B C 14E
TP3906	B C 14D
TP3907	B C 14D
TP3908	B C 15E
TP4001	A D 20F
OTHER	
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B12	B C 9G
B17	B C 10J
B60	B C 11O
B65	B C 10J
B75	B C 14L
B203	A D 19D
B204	A D 17H
B206	B C 17G
B214	B C 17G
B301	B C 6M
B302	B C 8L
B2001	B C 18J
B2002	B C 18M
B2051	A D 7N
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B3070	B C 13F
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B3966	A D 14G
B3971	B C 13F
B4001	B C 3E
B5001	A D 3P
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B7160	B C 13P
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CP3002	B C 6K
CP4001	A D 3G
CP4002	B C 4G
DI7001	A D 12A
FC5001	A D 2P
FC5002	A D 3P
J7105	A D 20A
JS3001	A D 8G
LF5001	A D 4P
LF5002	A D 3N
PC3001	A D 15F
PC3002	A D 9F
PC5101	A D 4K
T2051	A D 7O
T2052	A D 6O
T5001	A D 1K
TU6001	A D 22P
VA5003	A D 2O
VR2251	A D 20H
X1	A D 12K
X2	A D 12K
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X3002	A D 14E

COMPONENT PARTS LOCATION GUIDE <MAIN> LPB10170-004A

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C3	B C 15M
C4	B C 16M
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C7	B C 15N
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C11	B C 13N
C12	B C 12N
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C14	B C 12N
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C16	B C 12N
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C60	A D 11P
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C62	B C 12M
C63	B C 11N
C64	B C 10J
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C78	B C 11P
C80	B C 10K
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C99	B C 13J
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C2229	B C 18K
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CN902	A D 10P
CN903	A D 14P
CN904	A D 17P
CN905	A D 20P
CN2001	A D 9O
CN2002	A D 19L
CN3001	A D 7L
CN3901	A D 16B
CN5001	A D 1P
CN6701	A D 20L
CN7001	A D 1C
CN7002	A D 2C
DIODE	
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D2	A D 16P
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D203	A D 17E
D2201	A D 17I
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D3003	A D 5C
D3004	A D 4E
D3005	A D 3E
D3007	A D 7C
D3008	B C 15C
D4001	A D 10F
D4002	A D 10E
D5001	B C 2M
D5101	A D 1M
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D5103	A D 3K
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D5208	A D 2I
D5209	A D 2H
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D5303	A D 4G
D5305	A D 2F
D6002	A D 22N
D7003	A D 9A
D7051	A D 22B
DI7001	A D 12A
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IC	
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IC2	B C 10J
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IC301	A D 6M
IC2201	B C 16K
IC3001	B C 12D
IC3002	B C 14F
IC3003	B C 19B
IC7002	A D 8A
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L5	A D 13J
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L15	A D 11P
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L303	A D 7N
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L5202	A D 2G
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L6002	A D 21O
L6501	A D 21N
L7201	A D 20O
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Q3	B C 15M
Q4	B C 15M
Q5	B C 15P
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Q8	B C 12P
Q9	B C 12O
Q10	B C 11K
Q11	B C 12J
Q14	B C 12O
Q16	B C 11O
Q17	B C 12N
Q18	B C 10P
Q19	B C 11P
Q21	B C 10J
Q22	B C 10J
Q23	B C 10J
Q24	B C 12K
Q25	B C 11K
Q32	B C 10M
Q38	B C 12O
Q40	B C 12J
Q41	B C 10J
Q50	B C 14L
Q207	B C 17G
Q208	B C 16G
Q301	B C 7L
Q302	B C 6M
Q303	B C 8L
Q311	B C 6M
Q312	B C 5L
Q401	B C 16N
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Q403	B C 16N
Q404	B C 16N
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Q2254	B C 15J
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Q3005	B C 3E
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Q7012	B C 14B
Q7013	B C 14A
Q7014	B C 14A
Q7201	A D 19P
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R46	B C 10K
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R49	B C 10K
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R78	B C 10F
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R211	B C 17F
R212	B C 17F
R213	B C 17G
R216	B C 18F
R220	B C 18F
R224	B C 17G
R225	B C 16G
R226	B C 19E
R301	B C 6L
R302	B C 6L
R303	B C 7L
R304	B C 7L
R305	B C 8L
R306	B C 7M
R307	B C 8L
R308	B C 8L
R309	B C 8M
R310	B C 7M
R311	B C 7N
R312	B C 6N
R313	B C 6M
R314	B C 5M
R315	B C 5M
R316	B C 6M
R317	B C 7L
R318	B C 8L
R321	B C 6L
R326	B C 7M
R327	B C 7M
R328	B C 7N
R329	B C 6M
R401	B C 16O
R402	B C 16N
R403	B C 16N
R404	B C 16N
R405	B C 16N
R406	B C 16N
R407	B C 17N
R408	B C 17N
R2001	B C 13K
R2002	B C 13K
R2003	B C 13K
R2004	B C 13K
R2005	B C 14K
R2006	B C 14K
R2007	B C 14K
R2008	B C 14K
R2009	B C 14K
R2010	B C 14K
R2013	B C 15N
R2014	B C 15O
R2015	B C 15O
R2016	B C 14O
R2017	B C 14O
R2018	B C 14N
R2019	B C 14N
R2020	B C 13O
R2041	A D 11O
R2051	B C 8N
R2052	B C 8N
R2053	B C 8N
R2054	B C 7O
R2055	B C 7P
R2056	A D 8O
R2057	B C 13N
R2058	B C 13N
R2059	B C 13O
R2060	B C 14O
R2061	B C 7O
R2062	B C 7P
R2063	A D 7O
R2064	B C 8N
R2065	B C 8N
R2201	B C 17L
R2202	B C 17L
R2203	B C 17L
R2204	B C 17L
R2205	B C 17M
R2206	B C 17L
R2207	B C 17M
R2208	B C 17L
R2209	B C 18J
R2210	B C 18I
R2211	B C 18J
R2212	B C 18J
R2213	B C 18I
R2214	B C 18J
R2215	B C 18J
R2216	B C 18J
R2217	B C 18J
R2218	B C 18K
R2219	B C 18K
R2220	B C 17I
R2222	B C 17M
R2223	B C 16M
R2224	B C 15J
R2225	B C 15J
R2226	B C 18L
R2227	B C 18L
R2228	B C 17M
R2229	B C 17L
R2230	B C 18L
R2231	B C 17L
R2232	B C 18L
R2233	B C 17L
R2234	B C 18J
R2235	B C 18K
R2236	B C 18L
R2237	B C 18K
R2238	B C 18L
R2239	B C 16J
R2240	B C 17I
R2251	B C 15K
R2252	B C 15L
R2253	B C 15K
R2254	A D 16I
R2255	B C 16J
R2256	B C 15J
R2257	B C 15K
R3011	B C 9C
R3012	B C 9C
R3013	B C 9C
R3014	B C 9C
R3015	B C 9C
R3016	B C 10C
R3017	B C 10C
R3018	B C 10C
R3019	B C 10C
R3020	B C 10C
R3021	B C 11C
R3022	B C 11C
R3025	B C 12C
R3026	B C 12B
R3027	B C 12B
R3029	B C 12C
R3030	B C 13C
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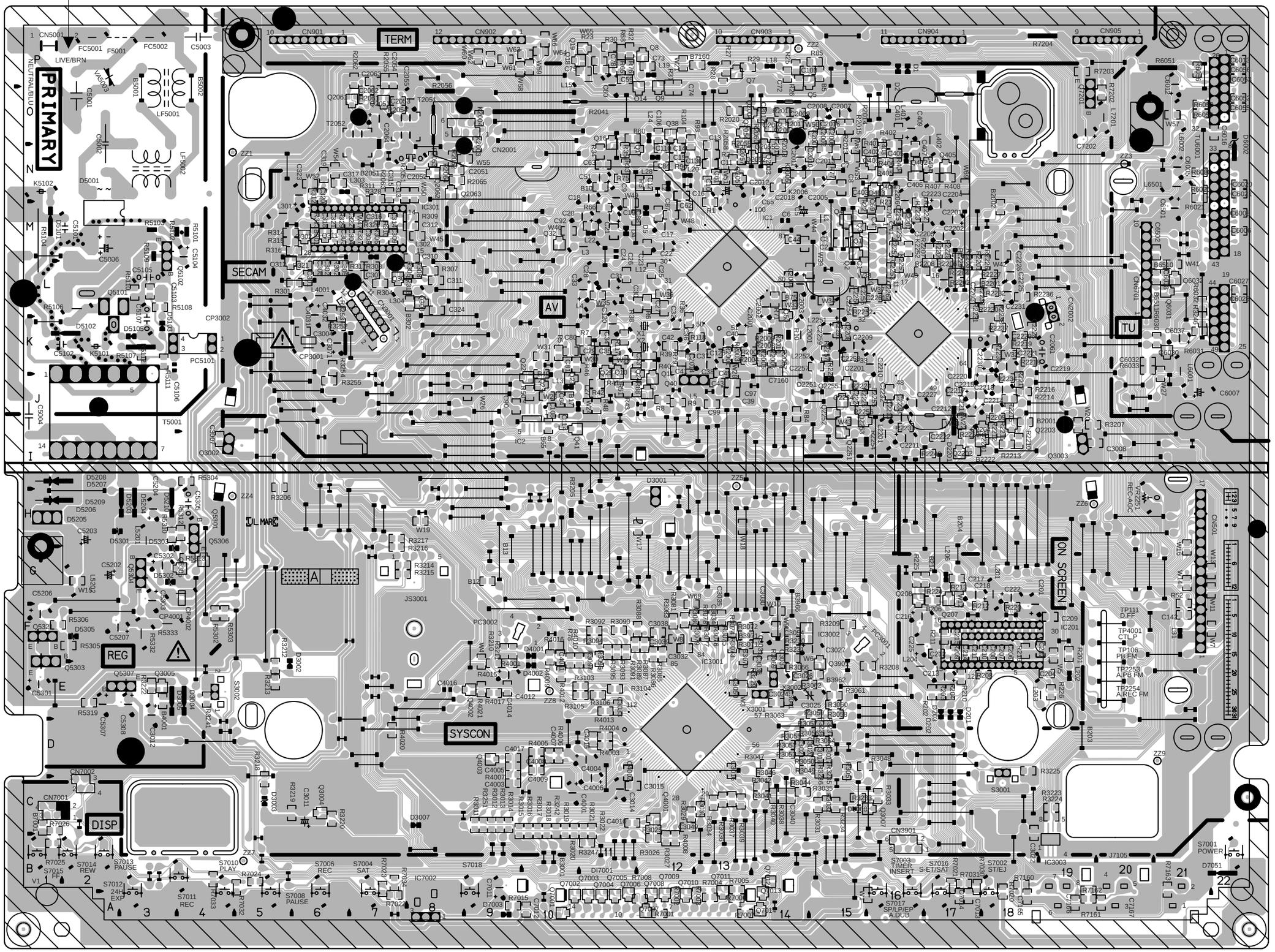
R3094	B C 11F
R3095	B C 11F
R3096	B C 11F
R3097	B C 11F
R3103	B C 11E
R3104	B C 11E
R3105	B C 11E
R3106	B C 11E
R3205	A D 10H
R3206	B C 5I
R3207	B C 19J
R3208	B C 16E
R3209	B C 15F
R3210	B C 9F
R3211	B C 9F
R3212	B C 5E
R3213	B C 5E
R3214	B C 7G
R3215	B C 7G
R3216	B C 7G
R3217	B C 7H
R3218	B C 5C
R3219	B C 6C
R3220	B C 6C
R3222	B C 3E
R3223	B C 19C
R3224	B C 19C
R3225	B C 18D
R3229	B C 14E
R3230	B C 14F
R3231	B C 14F
R3233	B C 15C
R3234	B C 15C
R3235	B C 15D
R3236	B C 15D
R3247	B C 11B
R3251	B C 9C
R3252	B C 6K
R3253	B C 6L
R3254	B C 6K
R3255	B C 6J
R4001	B C 9E
R4003	B C 11D
R4004	B C 11D
R4005	B C 10D
R4006	B C 10D
R4007	B C 9D
R4008	B C 12B
R4009	B C 10F
R4010	B C 11F
R4012	B C 10E
R4013	B C 11E
R4015	B C 9E
R4016	B C 10F
R4017	B C 9E
R4020	B C 7D
R4021	B C 9E
R5101	A D 4M
R5102	A D 4M
R5103	A D 3M
R5104	A D 1L
R5106	A D 2L
R5107	A D 3K
R5108	B C 3L
R5109	A D 3M
R5110	B C 3L
R5111	B C 3K
R5112	B C 3K
R5302	B C 4F
R5303	B C 4F
R5304	B C 4I
R5305	B C 2F
R5306	B C 1F
R5310	B C 3H
R5312	B C 4H
R5313	B C 4G
R5319	B C 2E
R5332	A D 3F
R5333	A D 3F
R6020	B C 21N
R6021	B C 21N
R6030	B C 21K
R6031	B C 21K
R6032	B C 21L
R6033	B C 20K
R6050	B C 21O
R6051	A D 21P
R6052	B C 21O
R6056	B C 21P
R6080	B C 21N
R7001	B C 12A
R7002	B C 12A
R7003	B C 13A
R7004	B C 13A
R7005	B C 13B
R7006	B C 13A
R7007	B C 13A
R7008	B C 12A
R7015	B C 9A
R7020	B C 18A
R7021	B C 17B
R7022	B C 7A
R7023	B C 7B
R7024	B C 5B
R7025	B C 1B
R7026	B C 1C
R7030	B C 17B
R7031	B C 17B
R7032	B C 5B
R7033	B C 4B
R7034	B C 7B
R7160	B C 18B
R7161	B C 19A
R7162	B C 19B
R7163	B C 21B
R7202	B C 20O
R7203	B C 19P
R7204	A D 19P
SWITCH	
S3001	A D 18C
S3002	A D 4E
S7001	A D 22B
S7002	A D 18B
S7003	A D 16B
S7004	A D 7B
S7006	A D 6B
S7008	A D 5B
S7010	A D 4B
S7011	A D 4B
S7012	A D 3B
S7013	A D 2B
S7014	A D 2B
S7015	A D 1B
S7016	A D 17B
S7017	A D 16B
S7018	A D 9B
TESTPOINT	
TP106	A D 19E
TP111	A D 19F
TP2253	A D 19E
TP2254	A D 19E
TP3901	B C 14D
TP3902	B C 13D
TP3903	B C 15E
TP3904	B C 13E
TP3905	B C 14E
TP3906	B C 14D
TP3907	B C 14D
TP3908	B C 15E
TP4001	A D 20F
OTHER	
B5	B C 15P
B10	B C 11N
B12	B C 9G
B17	B C 10J
B60	B C 11O
B65	B C 10J
B75	B C 14L
B203	A D 19D
B204	A D 17H
B206	B C 17G
B214	B C 17G
B301	B C 6M
B302	B C 8L
B2001	B C 18J
B2002	B C 18M
B2051	A D 7N
B2201	B C 18L
B2221	A D 19I
B2222	B C 17I
B3001	A D 10B
B3070	B C 13F
B3962	B C 15E
B3966	A D 14G
B3971	B C 13F
B4001	B C 3E
B5001	A D 3P
B5002	A D 4P
B6510	B C 21L
B6511	B C 21L
B7001	B C 1C
B7160	B C 13P
CP3001	A D 6K
CP3002	B C 6K
CP4001	A D 3G
CP4002	B C 4G
FC5001	A D 2P
FC5002	A D 3P
J7105	A D 20A
JS3001	A D 8G
K2001	B C 15O
K2002	B C 15O
K2003	B C 9N
K2004	B C 9O
K2005	B C 14N
K2006	B C 14N
K2251	B C 16L
K2252	B C 16M
K2253	B C 16M
K5101	A D 2K
K5102	A D 1N
LF5001	A D 4P
LF5002	A D 3N
PC3001	A D 15F
PC3002	A D 9F
PC5101	A D 4K
T2051	A D 7O
T2052	A D 6O
T5001	A D 1K
TU6001	A D 22P
VA5003	A D 2O
VR2251	A D 20H
X1	A D 12K
X2	A D 12K
X3001	A D 14E
X3002	A D 14E

4.17 MAIN CIRCUIT BOARD [FOR HR-S8960EX AND HR-S8965EK]

DANGEROUS VOLTAGE

<03>MAIN
LPB10170-004A

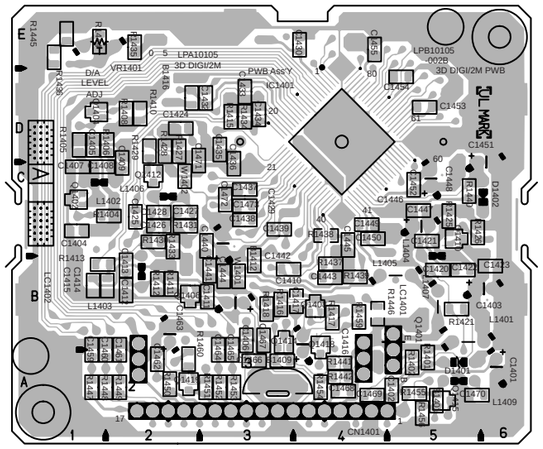


4.18 3D DIGITAL/2M CIRCUIT BOARD

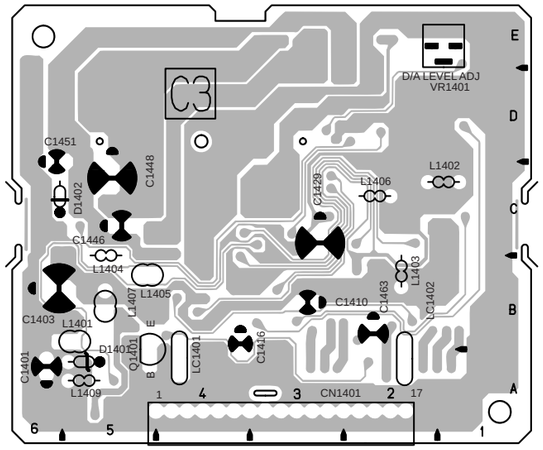
[FOR HR-S8960AG]

<05> 3D DIGITAL/2M
LPB10105-002B

- FOIL SIDE (B) -



- COMPONENT SIDE (A) -



COMPONENT PARTS LOCATION GUIDE <3D DIGITAL/2M> LPB10105-002B

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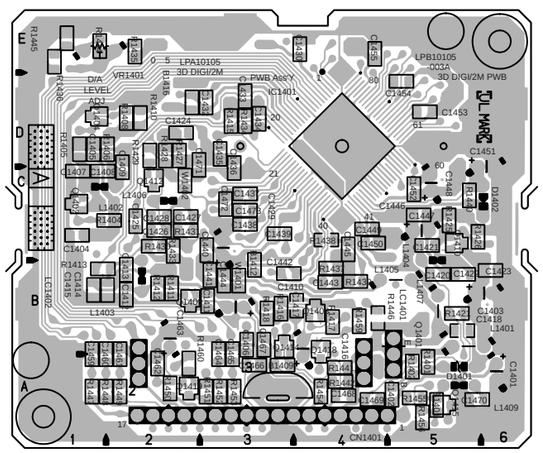
CAPACITOR		C1417	B C 4B	C1437	B C 3C	C1454	B C 5D	**CONNECTOR**		L1407	A D 5B	**RESISTOR**		R1426	B C 6C	R1445	B C 1E
C1401	A D 6A	C1420	B C 5B	C1438	B C 3C	C1455	B C 4E	CN1401	A D 5A	L1409	A D 5A	R1401	B C 5A	R1427	B C 2D	R1446	B C 4B
C1402	B C 5A	C1421	B C 5C	C1439	B C 3C	C1459	B C 1B			LC1401	A D 4A	R1402	B C 5A	R1428	B C 2D	R1447	B C 1A
C1403	A D 6B	C1422	B C 5B	C1440	B C 3C	C1460	B C 2B	**DIODE**		LC1402	A D 2A	R1404	B C 2C	R1429	B C 2D	R1448	B C 2A
C1404	B C 1C	C1423	B C 6B	C1441	B C 3B	C1461	B C 2B	D1401	A D 6A			R1405	B C 1D	R1430	B C 2C	R1449	B C 2A
C1405	B C 1D	C1424	B C 2D	C1442	B C 4B	C1462	B C 2A	D1402	A D 6C	**TRANSISTOR**		R1406	B C 2D	R1431	B C 2C	R1450	B C 2A
C1406	B C 3B	C1425	B C 2C	C1443	B C 4B	C1463	A D 2B			Q1401	A D 5B	R1408	B C 2D	R1433	B C 2C	R1451	B C 3A
C1407	B C 1C	C1426	B C 2C	C1444	B C 3B	C1464	B C 3B	**IC**		Q1402	B C 1C	R1410	B C 2D	R1434	B C 3D	R1452	B C 3A
C1408	B C 2C	C1427	B C 2C	C1445	B C 4C	C1465	B C 3B	IC1401	B C 4D	Q1404	B C 1D	R1411	B C 2B	R1435	B C 2E	R1453	B C 3A
C1409	B C 2C	C1428	B C 2C	C1446	A D 5C	C1466	B C 3A			Q1406	B C 2B	R1412	B C 2B	R1436	B C 1E	R1454	B C 4A
C1410	A D 3B	C1429	A D 3C	C1447	B C 5C	C1467	B C 3B	**COIL**		Q1408	B C 4B	R1413	B C 2B	R1437	B C 4B	R1455	B C 5A
C1411	B C 3B	C1430	B C 4E	C1448	A D 5C	C1468	B C 4A	L1401	A D 5B	Q1410	B C 5C	R1415	B C 3D	R1438	B C 4C	R1456	B C 5A
C1412	B C 2B	C1432	B C 3D	C1449	B C 4C	C1469	B C 4A	L1402	A D 2C	Q1412	B C 2C	R1416	B C 3B	R1439	B C 4B	R1459	B C 4B
C1413	B C 2B	C1433	B C 3D	C1450	B C 4C	C1470	B C 5A	L1403	A D 2B	Q1414	B C 3B	R1417	B C 4B	R1440	B C 5C	R1460	B C 2A
C1414	B C 2B	C1434	B C 3D	C1451	A D 6D	C1471	B C 3D	L1404	A D 5C	Q1415	B C 5A	R1418	B C 3B	R1441	B C 4A		
C1415	B C 1B	C1435	B C 3D	C1452	B C 5C	C1472	B C 3C	L1405	A D 4B	Q1418	B C 4B	R1421	B C 5B	R1442	B C 4A	**OTHER**	
C1416	A D 4A	C1436	B C 3C	C1453	B C 5D	C1473	B C 3C	L1406	A D 2C	Q1419	B C 2A	R1425	B C 5C	R1444	B C 2E	VR1401	A D 2E

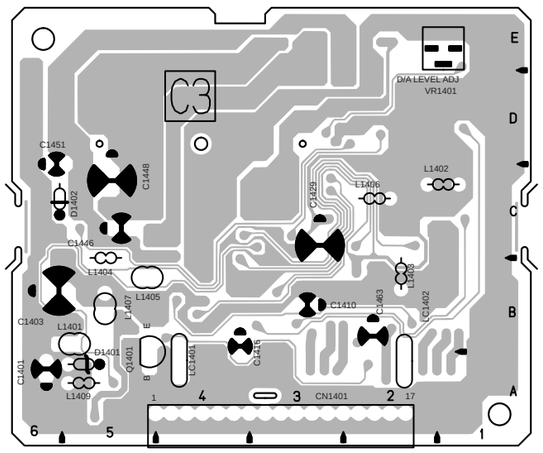
[FOR HR-S8960EX AND HR-S8965EK]

<05> 3D DIGITAL/2M
LPB10105-003A

- FOIL SIDE (B) -



- COMPONENT SIDE (A) -



COMPONENT PARTS LOCATION GUIDE <3D DIGITAL/2M> LPB10105-003A

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPASITOR		C1418	B C 5B	C1438	B C 3C	C1459	B C 1B	**DIODE**		**TRANSISTOR**		R1406	B C 2D	R1433	B C 2C	R1452	B C 3A
C1401	A D 6A	C1420	B C 5B	C1439	B C 3C	C1460	B C 2B	D1401	A D 5A	Q1401	A D 5B	R1408	B C 2D	R1434	B C 3D	R1453	B C 3A
C1402	B C 5A	C1421	B C 5C	C1440	B C 3C	C1461	B C 2B	D1402	A D 6C	Q1402	B C 1C	R1410	B C 2D	R1435	B C 2E	R1454	B C 4A
C1403	A D 5B	C1422	B C 5B	C1441	B C 3B	C1462	B C 2A			Q1404	B C 1D	R1411	B C 2B	R1436	B C 1E	R1455	B C 5A
C1404	B C 1C	C1423	B C 6B	C1442	B C 3B	C1463	A D 2B	**IC**		Q1406	B C 2B	R1412	B C 2B	R1437	B C 4B	R1456	B C 5A
C1405	B C 1D	C1424	B C 2D	C1443	B C 4B	C1464	B C 3B	IC1401	B C 4D	Q1408	B C 4B	R1413	B C 1B	R1438	B C 4C	R1459	B C 4B
C1406	B C 3B	C1425	B C 2C	C1444	B C 3B	C1465	B C 3B			Q1412	B C 2C	R1416	B C 3B	R1440	B C 5C	R1460	B C 2A
C1407	B C 1C	C1426	B C 2C	C1445	B C 4C	C1466	B C 3A	**COIL**		Q1414	B C 3B	R1417	B C 4B	R1441	B C 4A		
C1408	B C 1C	C1427	B C 2C	C1446	A D 5C	C1467	B C 3B	L1401	A D 5B	Q1415	B C 5A	R1418	B C 3B	R1442	B C 4A	**OTHER**	
C1409	B C 2C	C1428	B C 2C	C1447	B C 5C	C1468	B C 4A	L1402	A D 2C	Q1418	B C 4B	R1421	B C 5B	R1444	B C 1E	B1409	B C 3A
C1410	A D 3B	C1429	A D 3C	C1448	A D 5C	C1469	B C 4A	L1403	A D 2B	Q1419	B C 2A	R1425	B C 5C	R1445	B C 1E	B1412	B C 3B
C1411	B C 3B	C1430	B C 4E	C1449	B C 4C	C1470	B C 5A	L1404	A D 5C			R1426	B C 5C	R1446	B C 4B	B1416	B C 2D
C1412	B C 2B	C1432	B C 3D	C1450	B C 4C	C1471	B C 2D	L1405	A D 4B	**RESISTOR**		R1427	B C 2D	R1447	B C 1A	LC1401	A D 4A
C1413	B C 2B	C1433	B C 3D	C1451	A D 5D	C1472	B C 3C	L1406	A D 2C	R1401	B C 5A	R1428	B C 2D	R1448	B C 2A	LC1402	A D 2A
C1414	B C 2B	C1434	B C 3D	C1452	B C 5C	C1473	B C 3C	L1407	A D 5B	R1402	B C 5A	R1429	B C 2D	R1449	B C 2A	VR1401	A D 1E
C1415	B C 1B	C1435	B C 3D	C1453	B C 5D			L1409	A D 5A	R1404	B C 2C	R1430	B C 2C	R1450	B C 2A		
C1416	A D 4A	C1436	B C 3C	C1454	B C 5D	**CONECTOR**				R1405	B C 1D	R1431	B C 2C	R1451	B C 3A		
C1417	B C 4B	C1437	B C 3C	C1455	B C 4E	CN1401	A D 5A										

4.19 VOLTAGE CHARTS

<MAIN>

MODE PIN NO.	REC	PLAY
IC1		
1	1.6	2.2
2	2.8	2.8
3	2.5	2.5
4	1.9	1.4
5	1.9	1.4
6	2.3	2.1
7	2.0	0.7
8	0	0
9	2.6	3.0
10	2.4	2.5
11	3.0	3.1
12	2.8	2.4
13	3.0	3.1
14	3.6	2.4
15	0	0
16	2.8	2.8
17	1.5	1.5
18	2.8	2.8
19	0	3.8
20	2.8	2.8
21	1.5	1.9
22	2.8	2.8
23	3.0	2.8
24	5.0	5.0
25	0.3	0
26	0	0
27	1.3	2.3
28	0	2.3
29	1.8	1.9
30	2.1	2.1
31	0	0
32	2.5	2.5
33	5.0	5.0
34	2.7	2.5
35	5.0	0
36	2.5	2.1
37	2.3	1.2
38	2.1	1.6
39	1.3	2.7
40	1.6	2.1
41	0	2.1
42	2.1	4.6
43	0	0
44	4.6	2.1
45	4.6	4.6
46	2.8	4.6
47	2.5	2.9
48	5.0	2.6
49	2.5	5.0
50	2.8	2.5
51	2.8	2.8
52	0	0
53	2.5	2.5
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	2.0	2.0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	3.0	3.1
74	0	0
75	3.1	0
76	0.3	4.6
77	0	0
78	0	0
79	5.0	5.0
80	0	5.0
81	0	0
82	0	0
83	0	0
84	2.4	2.3
85	0	2.3
86	2.4	2.3
87	5.0	5.0
88	0	0
89	0	0
90	0	0
91	0	2.2
92	2.6	0
93	0	0.5
94	0	0
95	0	2.5
96	2.5	2.5
97	2.5	2.5
98	0	0
99	0	2.5
100	0	0

MODE PIN NO.	REC	PLAY
IC201		
1	0	0
2	2.6	2.6
3	4.9	4.9
4	0	0
5	4.0	-
6	2.4	2.4
7	2.4	2.4
8	4.9	5.0
9	3.3	3.2
10	4.5	4.5
11	4.8	4.7
12	4.9	5.0
13	2.7	2.8
14	2.8	2.8
15	0	0
16	1.2	1.2
17	0	0
18	4.9	5.0
19	2.3	2.3
20	0	0
21	2.3	2.3
22	1.1	1.4
23	4.9	5.0
24	2.8	2.9
25	2.4	2.5
26	4.9	5.0
27	3.9	-
28	3.5	3.6
29	4.9	5.0
30	4.9	5.0
IC2201		
1	2.4	2.4
2	0	0
3	2.4	2.4
4	0	0
5	0	0
6	0	2.5
7	2.0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	2.0	2.0
13	0	0
14	0	0
15	0	0
16	2.4	2.5
17	0.5	0.7
18	2.5	2.5
19	2.5	2.5
20	2.5	0.3
21	2.5	0
22	2.5	0.6
23	0	0
24	2.5	0.6
25	4.9	5.0
26	2.5	0
27	0	-
28	4.2	2.3
29	4.1	1.8
30	3.8	1.7
31	0.9	2.7
32	2.5	2.5
33	2.5	2.5
34	0.4	0.7
35	2.5	2.4
36	0	0
37	1.6	1.6
38	0	0
39	0	0
40	5.0	5.0
41	0	0
42	4.6	4.6
43	4.6	4.6
44	3.3	3.3
45	0	0
46	4.8	4.8
47	2.5	2.5
48	2.5	2.5
49	0.2	0.2
50	0.2	0.2
51	0	0
52	0	0
53	4.4	4.4
54	0	0
55	0	0
56	0	0
57	4.5	4.4
58	8.4	8.4
59	4.6	4.5
60	0	0
61	2.5	2.5
62	2.4	2.4
63	4.4	4.5
64	4.5	4.5
IC3001		
1	-	2.5
2	0	0
3	-	2.5
4	2.5	2.5

MODE PIN NO.	REC	PLAY
5	0.5	1.1
6	2.5	2.5
7	2.4	2.4
8	2.5	2.5
9	4.9	5.0
10	4.9	4.9
11	0	0
12	1.2	1.3
13	0	2.5
14	4.5	4.5
15	4.8	4.8
16	4.9	4.9
17	4.3	4.3
18	0	0
19	4.9	4.9
20	4.5	4.5
21	3.8	3.9
22	4.2	2.5
23	0	0
24	4.8	4.8
25	0	0
26	4.9	4.9
27	0	0
28	0	0
29	0	4.8
30	4.4	4.4
31	4.9	4.9
32	4.9	4.9
33	0	0
34	4.4	4.4
35	2.5	2.5
36	4.9	4.9
37	4.4	0
38	0	3.9
39	4.4	4.4
40	0	0
41	4.8	4.8
42	4.4	4.4
43	0	0
44	0	0
45	4.9	4.9
46	0	0
47	2.8	2.8
48	0	0
49	4.5	4.6
50	4.6	4.6
51	4.4	4.4
52	4.7	4.8
53	4.5	4.5
54	-	-
55	-	-
56	4.9	4.9
57	0	4.9
58	4.9	4.9
59	0	0
60	0	0
61	4.2	4.3
62	0	0
63	0	0
64	1.5	1.5
65	0.9	1.3
66	4.9	4.9
67	2.4	-
68	0	0
69	2.4	2.5
70	4.9	4.9
71	4.9	4.9
72	4.9	5
73	4.7	4.8
74	0	0
75	-	3.9
76	-	-
77	0	0
78	0	0
79	0	4.9
80	0	0
81	4.9	4.9
82	4.9	4.9
83	-	-
84	0	0
85	4.9	0
86	4.9	0
87	0	0
88	4.7	0
89	0	0
90	4.8	0
91	-	3.7
92	-	4.1
93	3.4	-
94	-	-
95	-	-
96	-	-
97	-	-
98	0.7	0.7
99	0	-
100	-	-
101	2.6	2.6
102	2.6	2.6
103	4.9	4.9
104	4.9	0
105	4.9	0

MODE PIN NO.	REC	PLAY
106	0	4.8
107	1.3	1.6
108	1.3	1.3
109	4.9	4.9
110	0	0
111	0	0
112	2.4	2.3
IC3002		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	0	0
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	-	-
6	-	4.0
7	0	0
8	4.9	4.9
IC7002		
1	4.8	4.8
2	4.9	4.9
3	0	0
CN1		
1	0	0
2	0	0
3	0	0
4	2.4	2.2
5	2.4	2.2
6	2.4	2.3
7	2.5	0
8	2.5	0
9	2.5	0
10	0	0
11	0	0
CN501		
1	2.6	2.6
2	0	0
3	2.4	2.5
4	4.9	5.0
5	2.1	2.1
6	0.3	4.4
7	3.3	3.3
8	0	0
9	2.8	2.8
10	0	0
11	4.6	4.6
12	4.6	4.6
13	0	0
14	0.7	0.7
15	0	-
16	0	0
17	-	-
CN901		
1	4.6	4.6
2	4.6	4.6
3	0.3	4.3
4	0	0
5	2.5	2.3
6	0	0
7	3.6	2.4
8	0	0
9	2.8	2.8
10	5.0	5.0
CN902		
1	2.7	2.7
2	0	0
3	0	0
4	2.4	2.1
5	1.3	2.3
6	4.9	4.9
7	0	0
8	0	0
9	2.3	2.3
10	0	0
11	0	0
12	2.3	2.3
CN903		
1	4.7	4.7
2	0	0
3	0	0
4	0	0
5	0.7	0.7
6	10.7	10.7
7	10.7	10.7
8	4.1	4.0
9	4.0	-
10	0	0
CN904		
1	0	0
2	4.9	4.9
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0

MODE PIN NO.	REC	PLAY
11	0	0
CN905		
1	2.6	2.6
2	0	0
3	2.8	2.8
4	0	0
5	3.3	3.3
6	0	0
7	2.1	2.1
8	0	0
9	2.4	2.5
CN2001		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.2	2.5
6	2.2	2.5
CN2002		
1	0	0
2	0	0
CN3001		
1	2.5	2.5
2	12.1	12.2
3	5.0	5.0
4	0	0
5	6.7	6.7
6	0	0
7	0	0
8	12.1	12.1
9	2.7	2.7
10	2.5	2.5
11	1.3	1.4
12	2.6	2.6
CN3901		
1	0	0
2	4.9	4.9
3	0	0
4	4.9	4.9
5	2.9	3.0
6	0	0
CN6701		
1	0	0
2	-	-
3	-	-
4	4.8	4.8
5	0	0
6	0	0
7	4.9	4.9
8	0	0
9	0	0
10	0	0
CN7002		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	4.9	4.9

<3D TBC(2M)>

MODE PIN NO.	REC	PLAY
IC1401		
1	0.2	0
2	0	0
3	3.3	0
4	3.3	3.3
5	0	2.4
6	0	0
7	-	2.4
8	0.7	0.7
9	0	0
10	0	0
11	3.7	3.7
12	4.7	4.6
13	0	0
14	2.4	2.5
15	2.3	2.3
16	3.2	3.2
17	0.8	0.8
18	0	0
19	0.4	0.4
20	0.9	1.0
21	1.0	1.0
22	3.3	3.3
23	2.1	2.1
24	1.4	1.5
25	2.6	2.6
26	0.5	0.5
27	2.6	2.6
28	0.5	0.5
29	1.5	1.5
30	0	0
31	1.6	1.6
32	3.3	3.3
33	1.6	1.6
34	0	0
35	0	0
36	0.5	0.5
37	3.3	3.3
38	1.9	2.0
39	1.2	1.2
40	1.2	1.2
41	3.3	3.3
42	2.5	2.5
43	0	0
44	3.3	3.3
45	3.3	3.3
46	2.5	2.5
47	0	0
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	3.3	3.3
56	0	0
57	0	0
58	0	0
59	0	0
60	3.3	3.3
61	3.3	3.3
62	1.6	1.6
63	3.3	3.3
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	3.3
70	3.3	3.3
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	2.5	2.5
78	0	0
79	0	0
80	0	0
CN1401		
1	2.6	2.6
2	0	0
3	2.4	2.5
4	5.0	5.0
5	2.1	2.1
6	0.3	4.3
7	3.3	3.3
8	0	0
9	2.8	2.9
10	0	0
11	4.7	4.6
12	0	4.6
13	0	0
14	0.7	0.7

<TERMINAL>

MODE PIN NO.	REC	PLAY
IC501	-	-
IC502		
1	2.0	2
2	0.3	4.4
3	3.4	3.4
4	3.4	3.4
5	5.0	5.0
6	2.2	2.2
7	2.0	2.0
8	5.0	5.0
9	1.4	1.4
10	2.9	2.9
11	2.9	2.9
12	2.9	2.8
13	0	0
14	2.8	2.9
15	2.8	2.9
16	1.9	2.0
17	2.0	2.0
18	1.9	2.0
IC901	-	-
CN911		
1	4.6	4.6
2	4.6	4.6
3	0.3	4.3
4	0	0
5	2.5	2.3
6	0	0
7	3.6	2.4
8	0	0
9	2.8	2.8
10	5.0	5.0
CN912		
1	2.7	2.7
2	0	0
3	0	0
4	2.4	2.1
5	1.3	2.3
6	4.9	4.9
7	0	0
8	0	0
9	2.3	2.3
10	0	0
11	0	0
12	2.3	2.3
CN913		
1	4.7	4.7
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN914		
1	0	0
2	4.9	4.9
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN915		
1	2.6	2.6
2	0	0
3	2.8	2.8
4	0	0
5	3.3	3.3
6	0	0
7	2.1	2.1
8	0	0
9	2.4	2.5
CN916	-	-

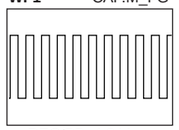
<DEMOD>

MODE PIN NO.	REC	PLAY
IC6701		
1	4.3	4.3
2	1.5	1.5
3	1.5	0
4	0	0
5	2.0	2
6	1.9	1.9
7	0.2	0.2
8	0	0
9	0	0
10	3.6	3.6
11	3.6	4.5
12	4.5	4.5
13	4.5	2.2
14	2.2	2.2
15	2.1	2.2
16	0	0
17	0.3	0.3
18	0.3	0.3
19	4.5	4.5
20	0	0
21	0.3	0.3
22	4.7	4.7
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	2.4	2.4
31	2.4	2.4
32	0	0
33	4.7	4.7
34	3.8	3.8
35	0	0
36	2.4	2.4
37	0	0
38	0	0
39	0	0
40	0	0
41	0	0
42	2.5	2.5
43	2.4	2.4
44	0	0
45	0	0
46	4.6	4.6
47	4.6	4.6
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	0	0
78	0	0
79	0	0
80	0	0

4.20 WAVEFORMS

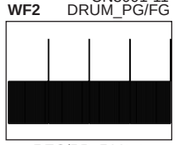
< SYSCON >

WF1 CN3001-1 CAP.M_FG



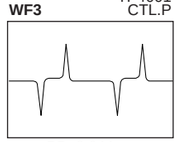
REC/PB 4.9 Vp-p
0.1 V/0.5 msec/DIV

WF2 CN3001-11 DRUM_PG/FG



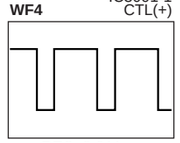
REC/PB 5 Vp-p
0.1 V/5 msec/DIV

WF3 TP4001 CTL.P



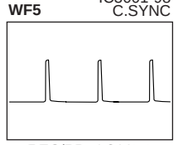
PB 2.0 Vp-p
50 mV/5 msec/DIV

WF4 IC3001-1 CTL(+)



REC 3.6 Vp-p
0.1 V/5 msec/DIV

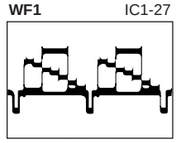
WF5 IC3001-98 C.SYNC



REC/PB 4.2 Vp-p
0.1 V/20 µsec/DIV

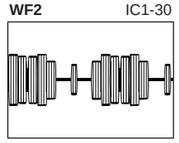
< VIDEO >

WF1 IC1-27



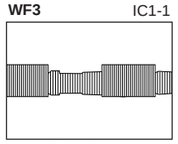
PB 1.8 Vp-p
50 mV/20 µsec/DIV

WF2 IC1-30



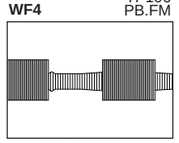
PB 0.68 Vp-p
20 mV/20 µsec/DIV

WF3 IC1-1



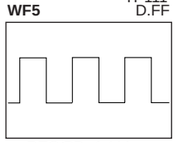
PB 0.3 Vp-p
20 mV/5 msec/DIV

WF4 TP106 PB.FM



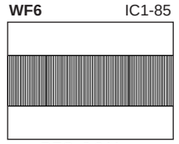
PB 0.36 Vp-p
20 mV/5 msec/DIV

WF5 TP111 D.FF



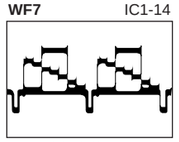
REC/PB 4.4 Vp-p
0.1 V/10 msec/DIV

WF6 IC1-85



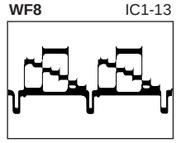
REC 2.0 Vp-p
0.1 V/1 msec/DIV

WF7 IC1-14



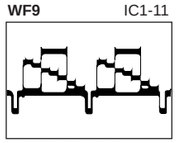
PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF8 IC1-13



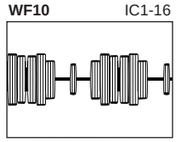
REC/PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF9 IC1-11



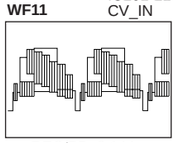
REC/PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF10 IC1-16



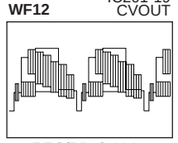
REC 0.68 Vp-p
20 mV/20 µsec/DIV

WF11 IC201-21 CV_IN



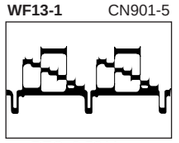
REC/PB 2.1 Vp-p
50 mV/20 µsec/DIV

WF12 IC201-19 CVOUT



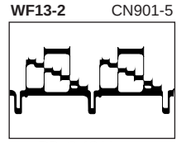
REC/PB 2.1 Vp-p
50 mV/20 µsec/DIV

WF13-1 CN901-5



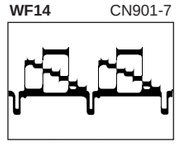
REC 0.52 Vp-p
20 mV/20 µsec/DIV

WF13-2 CN901-5



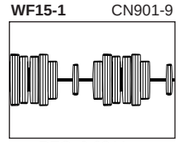
PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF14 CN901-7



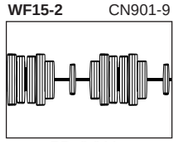
PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF15-1 CN901-9



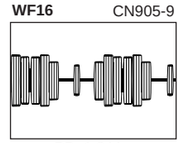
REC 0.68 Vp-p
20 mV/20 µsec/DIV

WF15-2 CN901-9



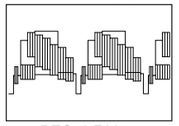
PB 2.6 Vp-p
50 mV/20 µsec/DIV

WF16 CN905-9



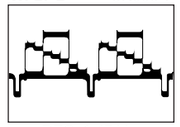
PB 1.3 Vp-p
50 mV/20 µsec/DIV

WF17-1 CN905-7



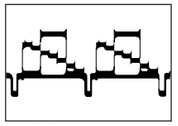
REC 1.7 Vp-p
50 mV/20 µsec/DIV

WF17-2 CN905-7



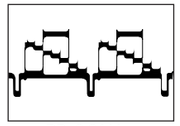
REC 1.45 Vp-p
50 mV/20 µsec/DIV

WF18-1 CN905-5



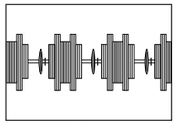
REC 0.6 Vp-p
20 mV/20 µsec/DIV

WF18-2 CN905-5



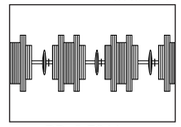
PB 0.64 Vp-p
20 mV/20 µsec/DIV

WF19-1 CN905-3



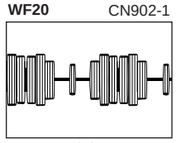
REC 0.44 Vp-p
20 mV/20 µsec/DIV

WF19-2 CN905-3



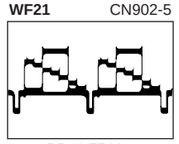
PB 0.72 Vp-p
20 mV/20 µsec/DIV

WF20 CN902-1



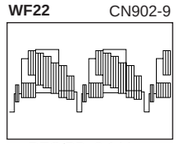
PB 0.6 Vp-p
20 mV/20 µsec/DIV

WF21 CN902-5



PB 1.75 Vp-p
50 mV/20 µsec/DIV

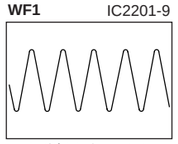
WF22 CN902-9



REC/PB 2.1 Vp-p
50 mV/20 µsec/DIV

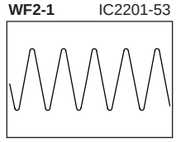
< AUDIO >

WF1 IC2201-9



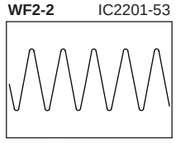
REC/PB 0.4 Vp-p
5 mV/0.5 msec/DIV

WF2-1 IC2201-53



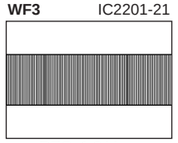
REC 0.36 Vp-p
20 mV/0.5 msec/DIV

WF2-2 IC2201-53



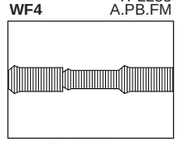
PB 0.6 Vp-p
20 mV/0.5 msec/DIV

WF3 IC2201-21



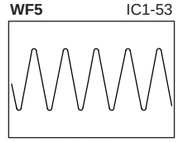
REC 1.0 Vp-p
0.1 V/5 msec/DIV

WF4 TP2253 A.PB.FM



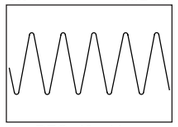
PB 0.5 Vp-p
50 mV/5 msec/DIV

WF5 IC1-53



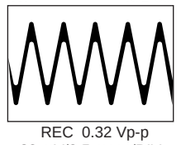
PB 0.3 Vp-p
10 mV/0.5 msec/DIV

WF6 IC1-63



REC 40m Vp-p
2 mV/0.5 msec/DIV

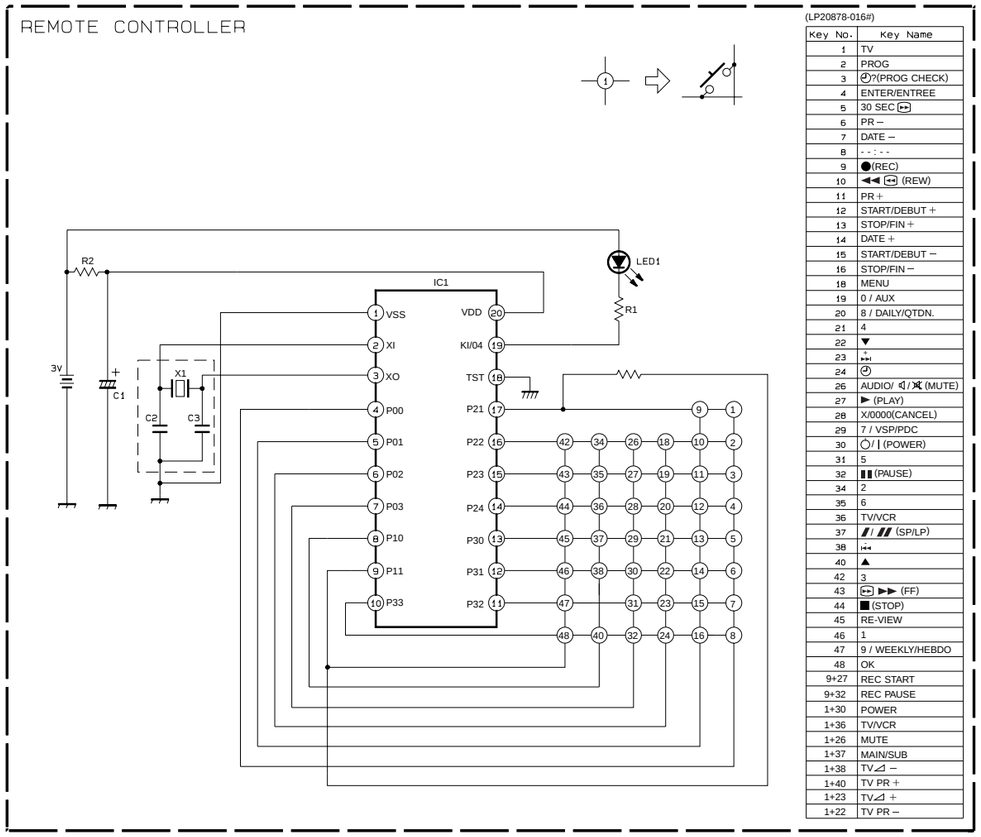
WF7 IC1-99



REC 0.32 Vp-p
20 mV/0.5 msec/DIV

4.21 REMOTE CONTROLLER SCHEMATIC DIAGRAM

NOTES:
1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
   Avoid replacing individual parts.
   Replace the entire unit only.

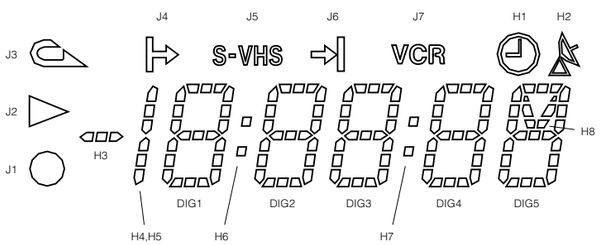


(LP20878-016#)

Key No.	Key Name
1	TV
2	PROG
3	?(PROG CHECK)
4	ENTER/ENTREE
5	30 SEC
6	PR –
7	DATE –
8	- - : - -
9	●(REC)
10	◄◄ (REW)
11	PR +
12	START/DEBUT +
13	STOP/FIN +
14	DATE +
15	START/DEBUT –
16	STOP/FIN –
18	MENU
19	0 / AUX
20	8 / DAILY/QTDN.
21	4
22	▼
23	+ ▸▸I
24	
26	AUDIO/ (MUTE)
27	► (PLAY)
28	X/0000(CANCEL)
29	7 / VSP/PDC
30	/ (POWER)
31	5
32	▮▮ (PAUSE)
34	2
35	6
36	TV/VCR
37	/ (SP/LP)
38	I◂◂
40	▲
42	3
43	►► (FF)
44	■ (STOP)
45	RE-VIEW
46	1
47	9 / WEEKLY/HEBDO
48	OK
9+27	REC START
9+32	REC PAUSE
1+30	POWER
1+36	TV/VCR
1+26	MUTE
1+37	MAIN/SUB
1+38	TV –
1+40	TV PR +
1+23	TV +
1+22	TV PR –

4.22 FDP GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

No.	CONNECTION
1	CATHODE G, J7, H8
2	CATHODE F, J6, H7
3	CATHODE E, J5, H6
4	CATHODE D, J4, H4, H5
5	CATHODE C, J3, H3
6	CATHODE B, J2, H2
7	CATHODE A, J1, H1
8	COMMON ANODE H1-H8
9	COMMON ANODE J1-J7
10	COMMON ANODE (DIGIT 5)
11	COMMON ANODE (DIGIT 4)
12	COMMON ANODE (DIGIT 3)
13	COMMON ANODE (DIGIT 2)
14	COMMON ANODE (DIGIT 1)

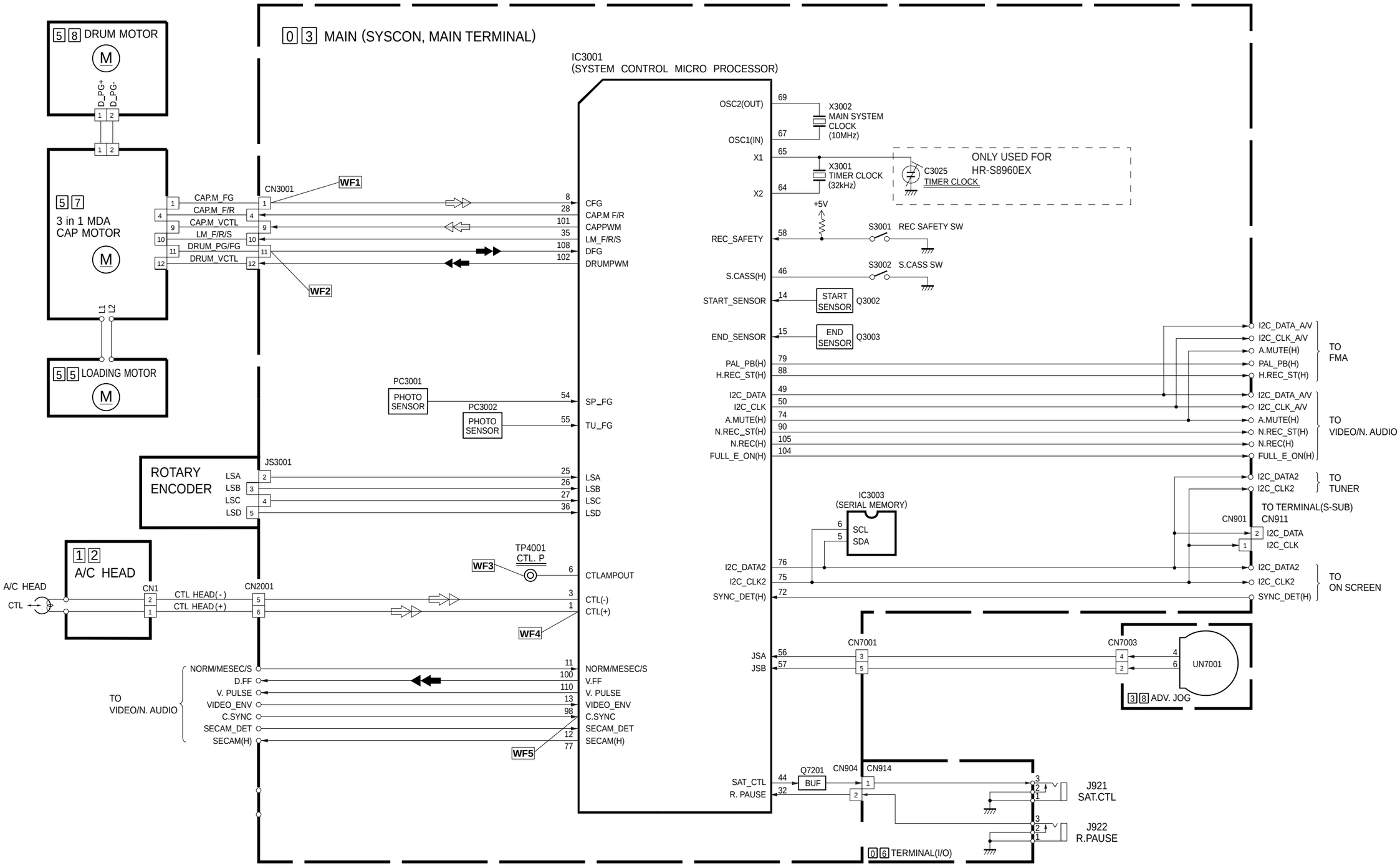
4.23 CPU PIN FUNCTION

<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN/OUT	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(-)	IN/OUT	CTL(-) SIGNAL
4	CTLBIAS	-	CTL BIAS VOLTAGE
5	CTLFB	IN	CTL PULSE FEEDBACK
6	CTLAMPOUT	OUT	CTL PULSE OUTPUT
7	CTLSMTIN	IN	CTL PULSE INPUT
8	CFG	IN	CAPSTAN FG PULSE INPUT
9	SVCC	-	SYSTEM POWER
10	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
11	NORM/MESEC/S	IN	(NORM MODE: L/MESECAM MODE: M/SVHS MODE:H)
12	SECAM_DET	IN	SECAM COLOR DETECT (SECAM:H)
13	VIDEO_ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
14	START_SENSOR	IN	START SENSOR
15	END_SENSOR	IN	END SENSOR
16	KEY1	IN	OPERATION CONTROL SIGNAL
17	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
18	SCR_ID/	IN	SCRAMBLE CONTROL INPUT (SCRAMBLE:H)
19	KEY2	IN	OPERATION CONTROL SIGNAL
20	AFC	IN	TUNING CHECK
21	RF AGC	IN	CHANGES IN ATS+IC OUTPUT AS CAUSED BY CHANGES IN RECEIVER SENSITIVITY WHEN THE SAME CHANNEL IS RECEIVED MORE THAN ONCE ARE INPUT.
22	A.ENV/ND(L)	IN	AUDIO PB FM ENV.INPUT/NON HiFi MODE:L
23	AVSS	-	GND FOR ANALOG CIRCUIT
24	CTL_GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
25	LSA	IN	MECHANISM MODE DETECT(A)
26	LSB	IN	MECHANISM MODE DETECT(B)
27	LSC	IN	MECHANISM MODE DETECT(C)
28	CAP.M F/R	OUT	CAPSTAN MOTOR FORWARD/REVERSE CONTROL
29	RC	IN	REMOTE CONTROL DATA INPUT
30	DIG1	OUT	LED DRIVE
31	P50_IN	IN	CONTROL SIGNAL FOR TV LINK
32	R.PAUSE	IN	REMOTE PAUSE CONTROL
33	P50_OUT	OUT	CONTROL SIGNAL FOR TV LINK
34	DIG2	OUT	LED DRIVE
35	LM_F/R/S	OUT	LOADING MOTOR DRIVE
36	LSD	OUT	MECHANISM MODE DETECT (D)
37	DIG3	OUT	LED DRIVE
38	SB_GAIN(PWM)	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
39	DIG4	OUT	LED DRIVE
40	POWER_DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
41	P.CTL(H)	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY
42	DIG5	OUT	LED DRIVE
43	VSS	-	GND
44	SAT_CTL	OUT	CONTROL SIGNAL FOR SATELLITE RECEIVER
45	VCC	-	SYSTEM POWER
46	S.CASS(H)	IN	DETECTION SIGNAL FOR SVHS CASSETTE (SVHS:H)
47	OSD_CS	OUT	CHIP SELECT FOR THE ON-SCREEN IC
48	MESECAM(H)/AGC_CTL	OUT	MESECAM: H/AGC CONTROL INPUT
49	I2C_DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
50	I2C_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC
51	DIG6	OUT	LED DRIVE
52	S.DATA_FRSYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN IC
53	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN IC
54	SP_FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
55	TU_FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
56	JSA	IN	INPUT FOR THE JOG SHUTTLE

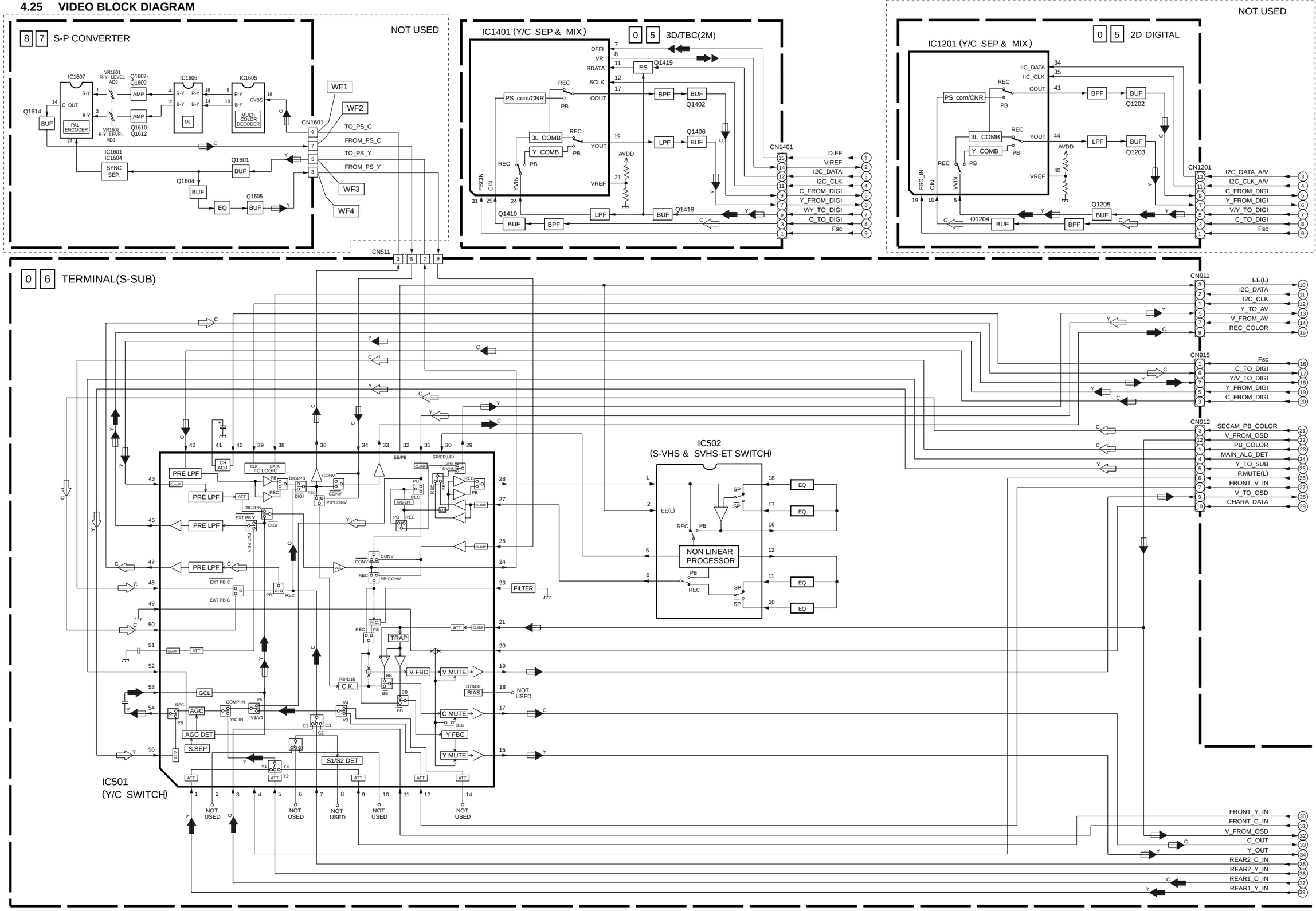
PIN NO.	LABEL	IN/OUT	FUNCTION
57	JSB	IN	INPUT FOR THE JOG SHUTTLE
58	REC_SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
59	SW1	OUT	TUNER SYSTEM MODE:H
60	SW2	OUT	TUNER SYSTEM MODE:L
61	DIG7	OUT	LED DRIVE
62	FWE	OUT	FLASH WRITE ENABLE
63	NMI(L)	-	CONNECT TO GND
64	X2	-	TIMER CLOCK (32.768KHz)
65	X1	-	TIMER CLOCK (32.768KHz)
66	RES	-	RESET TERMINAL (RESET ON:L)
67	OSC1(IN)	-	MAIN SYSTEM CLOCK(10MHz)
68	VSS	-	GND
69	OSC2(OUT)	-	MAIN SYSTEM CLOCK(10MHz)
70	VCC/VCL	-	SYSTEM POWER
71	MODE	IN	FWE MODE
72	SYNC DET(H)	IN	DETECTION OF VIDEO SYNC SIGNAL(DETECTED:H)
73	TU_V_MUTE(H)	OUT	TUNER VIDEO CONTROL (MUTE:H)
74	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE:H)
75	I2C_CLK2	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
76	I2C_DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
77	SECAM(H)	OUT	SECAM MODE:H
78	P.ON_PULSE	OUT	P.ON_PULSE(H)
79	PAL PB(H)	OUT	PAL FM(PB ON:H)
80	V.P.CTL	OUT	V.PULSE CONTROL, V COMPENSATION DURING SPECIAL PLAYBACK
81	VHS(H)	OUT	VHS MODE(H)
82	VCC	-	SYSTEM POWER
83	SLOW_P	OUT	MEMORY TIMING CONTROL IN THE SLOW MODE
84	VSS	-	GND
85	SP_SHORT(H)/FLY.ON(H)	OUT	MODE SELECT/FLYING ERASE ON:H
86	LP_SHORT(H)/FLY.REC(H)	OUT	MODE SELECT/FLY REC START:H
87	SEP(H)	OUT	SEP PB:H
88	H.REC_ST(H)	OUT	HIFI AUDIO SOUND RECORDING START
89	TRICK(H)	OUT	SPECIAL PLAYBACK:H
90	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
91	Da	OUT	LED DRIVE
92	Db	OUT	LED DRIVE
93	Dc	OUT	LED DRIVE
94	Dd	OUT	LED DRIVE
95	De	OUT	LED DRIVE
96	Df	OUT	LED DRIVE
97	Dg	OUT	LED DRIVE
98	C.SYNC	IN	COMPOSITE SYNC
99	A.FF	OUT	AUDIO FF OUTPUT
100	V.FF	IN	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC
101	CAPPWM	OUT	CAPSTAN MOTOR CONTROL
102	DRUMPWM	OUT	DRUM MOTOR CONTROL
103	P.MUTE(L)	OUT	PICTURE MUTE CONTROL(MUTE:L)
104	FULL_E_ON(H)	OUT	FULL ERASE ON:H
105	N.REC(H)	OUT	NORMAL AUDIO REC MODE CONTROL SIGNAL (REC:H)
106	ET_REC(H)	OUT	ET REC MODE:H
107	HI_S_FF_REW	OUT	HIGH SPEED FF/REW CONTROL
108	DFG	IN	DRUM FG PULSE INPUT
109	VCC	-	SYSTEM POWER
110	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
111	VSS	-	GND
112	CTLREF	-	CTL REFERENCE VOLTAGE

4.24 SYSTEM CONTROL BLOCK DIAGRAM

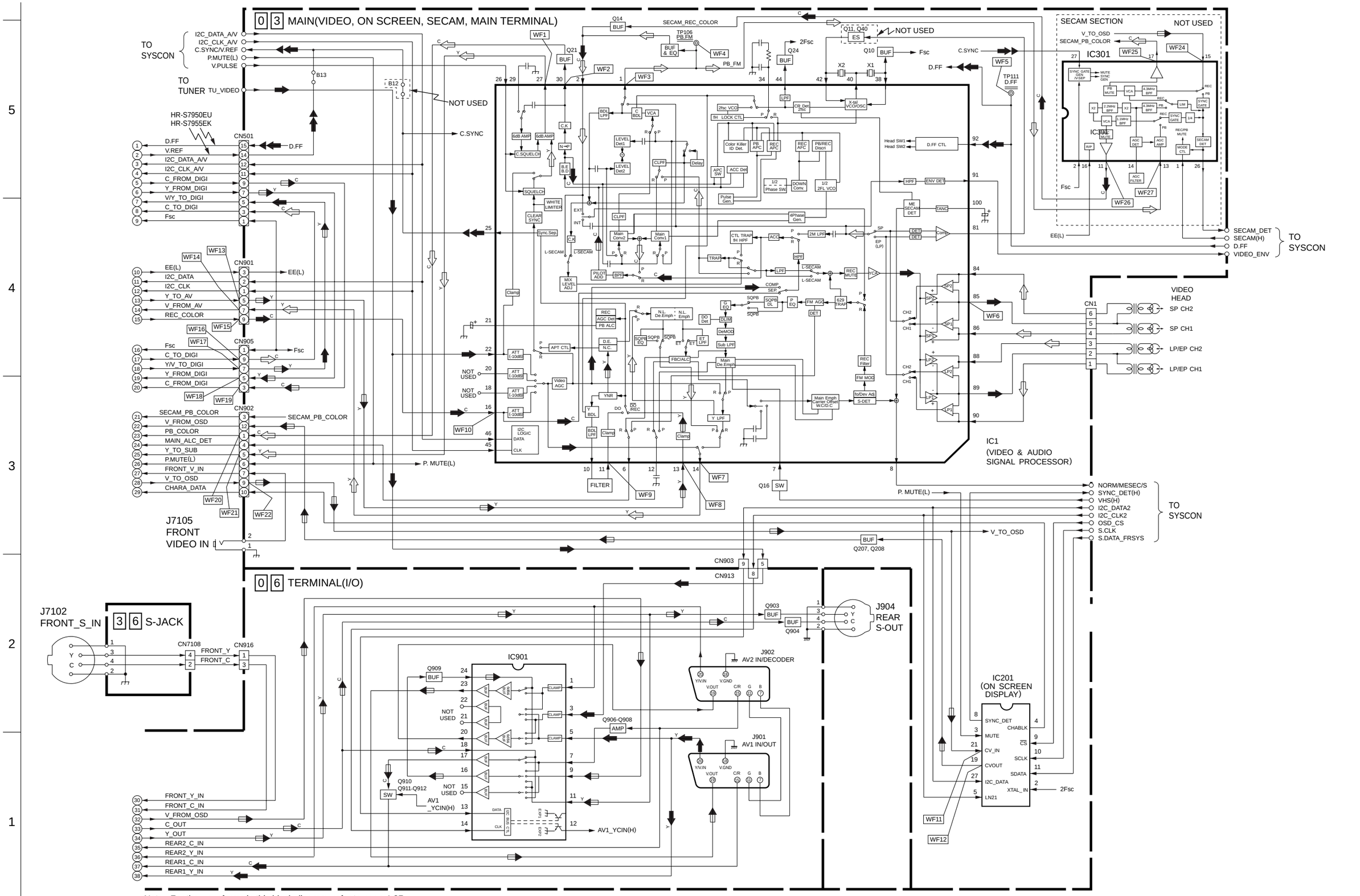


Note : For the waveforms in this block diagram, refer to page 4-37.

4.25 VIDEO BLOCK DIAGRAM

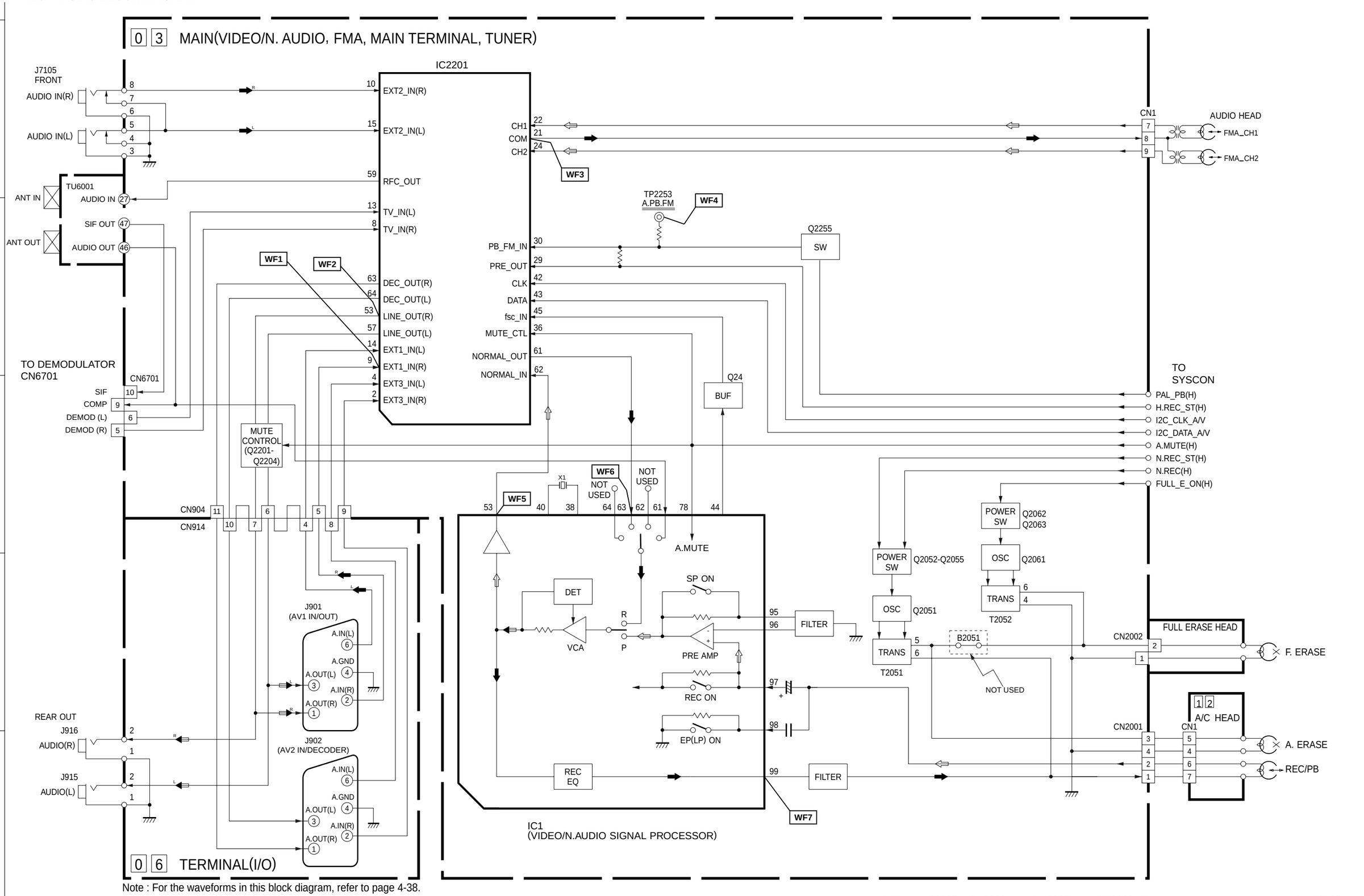


Note : For the waveforms in this block diagram, refer to page 4-37.



Note : For the waveforms in this block diagram, refer to page 4-37.

4.26 AUDIO BLOCK DIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-38.

SECTION 5
PARTS LIST

5.1 EXPLODED VIEW

SAFETY PRECAUTION

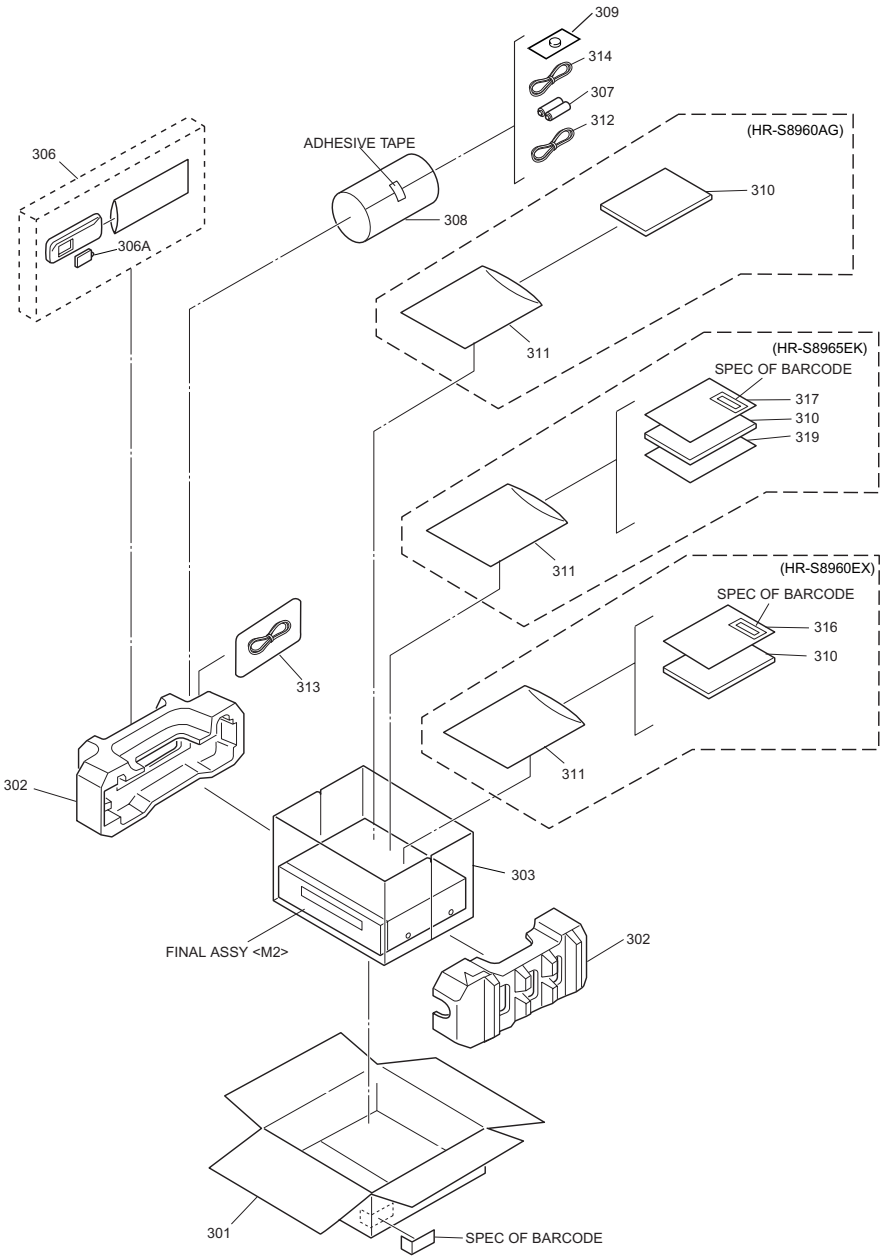
Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

BEWARE OF BOGUS PARTS

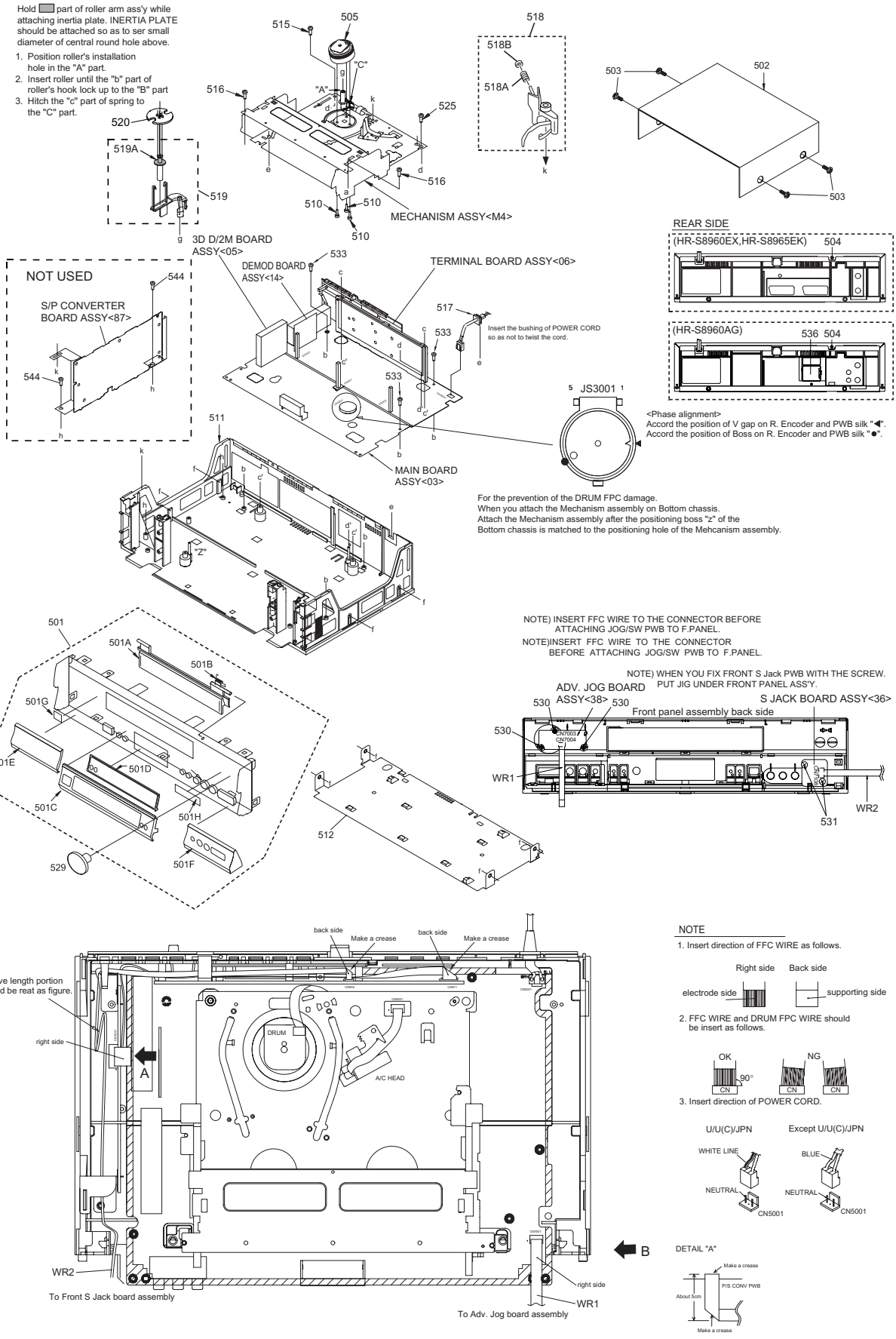
Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.

5.1.1 PACKING AND ACCESSORY ASSEMBLY <M1>

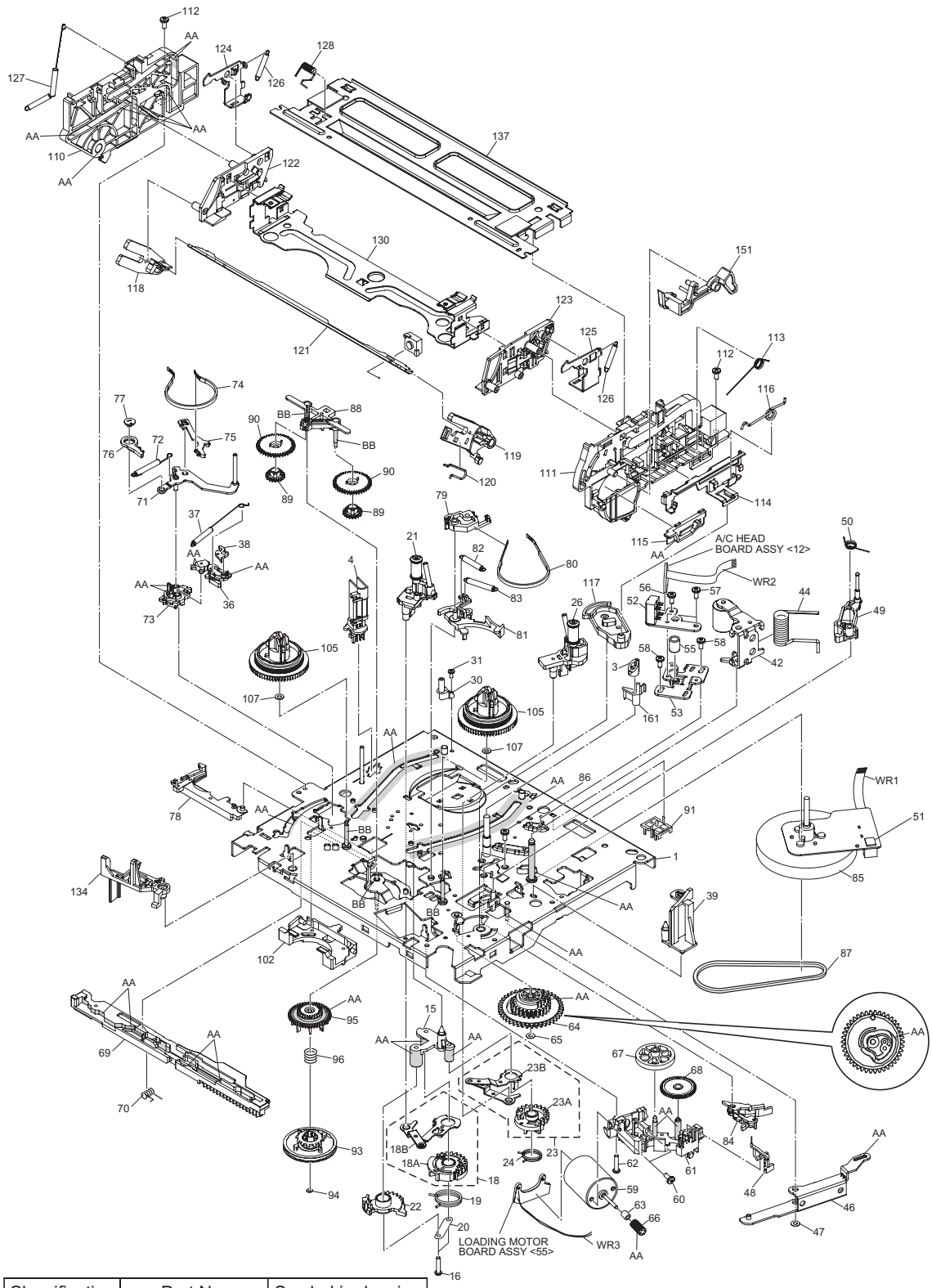
The instruction manual to be provided with this product will differ according to the destination.



5.1.2 FINAL ASSEMBLY <M2>



5.1.3 MECHANISM ASSEMBLY <M4>



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

5.2 PARTS LIST

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION	A B C

****

PACKING AND ACCESSORY ASSEMBLY <M1>

301	LP30855-004B	PACKING CASE	A B
301	LP31255-003A	PACKING CASE	C
302	LP31187-001A	CUSHION ASSY	A B
302	LP31247-001A	CUSHION ASSY	C
303	PQM30021-093	POLY BAG	A B
303	LP41038-002A	POLY BAG	C
306	LP20878-016A	REMOTE CTL UNIT	A B
306	LP20878-019B	REMOTE CTL UNIT	C
306A	LP40610-003A	COVER(BATTERY)	A B C
307	———	BATTERY,X2	A B C
308	QPC02202230P	POLY BAG,CABLE	A B C
⚠ 309	PECA0903	LI BATTERY	C
⚠ 310	LPT0754-001A	INST.BOOK(ENGLISH),FOR EX	A
⚠ 310	LPT0754-002A	INST.BOOK(GERMANY),FOR EX&EY	A
⚠ 310	LPT0754-003A	INST.BOOK(FRENCH),FOR EX	A
⚠ 310	LPT0754-004A	INST.BOOK(DUTCH),FOR EX	A
⚠ 310	LPT0754-005A	INST.BOOK(SPANISH),FOR EX	A
⚠ 310	LPT0754-006A	INST.BOOK(ITALIAN),FOR EX	A
⚠ 310	LPT0754-007A	INST.BOOK(DANISH),FOR EY	A
⚠ 310	LPT0754-008A	INST.BOOK(FINN),FOR EY	A
⚠ 310	LPT0754-009A	INST.BOOK(SWEDISH),FOR EY	A
⚠ 310	LPT0754-010A	INST.BOOK(NORWEGIAN),FOR EY	A
⚠ 310	LPT0754-011A	INST.BOOK(PORTUGUESE),FOR EX	A
⚠ 310	LPT0754-012A	INST.BOOK(GREEK),FOR EX	A
⚠ 310	LPT0754-013A	INST.BOOK(CZECH),FOR EZ	A
⚠ 310	LPT0754-014A	INST.BOOK(POLISH),FOR EZ	A
⚠ 310	LPT0754-015A	INST.BOOK(HUNGARIAN),FOR EZ	A
⚠ 310	LPT0771-001A	INST.BOOK(ENGLISH)	B
⚠ 310	LPT0798-001A	INST.BOOK(ENGLISH)	C
⚠ 310	LPT0798-002A	INST.BOOK(CHINESE)	C
311	QPC02503530P	POLY BAG,INST	A B C
312	PEAC0300-02	RF CABLE	A B
312	PEAC0348-02	RF CABLE	C
313	QAL0095-005	LED CABLE ASSY	A B
314	QAM0004-002	S CABLE,ACC.SA	C
316	BT-54013-5	WARRANTY CARD	A
317	BT-54008-4	GUARANTY CARD	B
319	LYT0194-001B	Q.CARD(JUK)	B

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FINAL ASSEMBLY <M2>

⚠ 501	LP10452-013D	FRONT PANEL ASSY	A
⚠ 501	LP10452-028C	FRONT PANEL ASSY	B
⚠ 501	LP10452-037A	FRONT PANEL ASSY	C
501A	LP21123-008B	CASSETTE DOOR	A B
501A	LP21123-016A	CASSETTE DOOR	C
501B	PQ46448	TORSION SPRING	A B C
501C	LP21127-007B	COVER(WINDOW)	A B
501C	LP21127-012A	COVER(WINDOW)	C
501D	LP31188-005A	WINDOW(1)	A
501D	LP31188-017A	WINDOW(1),S89865EK	B
501D	LP31188-019A	WINDOW(1)	C
501E	LP31142-010B	DOOR(JACK)	A
501E	LP31142-014B	DOOR(JACK)	B
501E	LP31142-021A	DOOR(JACK)	C
501F	LP30877-006A	COVER(R)	A B C
501G	LP41035-001A	STICKER	A B
501G	LP41064-004A	STICKER	C
501H	LP41035-005A	STICKER	A B
⚠ 502	LP10013-051C	TOP COVER	A B
⚠ 502	LP10013-045C	TOP COVER	C
503	QYTDSF3010R	TAP SCREW,X4,SIDE	A B C
504	QYTDSF3010M	TAP SCREW,REAR	A B C
505	PDV2547A	DRUM FINAL ASSY	A B C
510	QYSPSPD3008Z	SCREW,X3,DRUM	A B C
⚠ 511	LP10108-016H	BOTTOM CHASSIS	A B C
⚠ 512	LP10014-002C	BOTTOM COVER	A B
515	QYTDSF4012Z	TAP SCREW,FOR MECHA	A B C
516	QYSPSFG3010Z	TAP SCREW,X2,FOR MECHA	A B C
⚠ 517	QMP4A10-170	POWER CORD	A C
⚠ 517	QMP51K0-170-K	POWER CORD	B
518	LP40910-002G	H. CLEANER ASSY	C
518A	PQ46418-2	CLEANER ROLLER	C
518B	PQ46419-2	CLEANER	C
519	LP40370-001F	ROLLER ARM ASSY	A B C
519A	PDM4311A-1	ROLLER ASSY	A B C
520	PQ45160	INERTIA PLATE	A B C
525	LP40700-001A	SPECIAL SCREW,FOR MECHA	A B
525	QYTDSF4012Z	TAP SCREW,FOR MECHA	C
529	LP30875-002B	KNOB(ADV.JOG)	A B
529	LP30875-001A	KNOB(ADV.JOG)	C
530	QYTPSFG2608Z	TAP SCREW,X3,FOR ADV.JOG	A B C
531	QYTDSF2608Z	TAP SCREW,X2,FOR S JACK	A B C
533	DPSF3010Z	SCREW,X3,MAIN	A B
536	LP30336-001A	CAP	C
WR1	QUQ212-0414CG	FFC WIRE,ADV.JOG(FSA)	A B C
WR2	QUQ212-0456CG	FFC WIRE,S JACK(FSA)	A B C

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MECHANISM ASSEMBLY <M4>

1	LP21039-001U	MAIN DECK ASSY	A B C
3	LP40097-002E	GUIDE POLE CAP	A B C
4	QAH0082-001	FULL ERASE HEAD	A B C
15	LP30958-001B	LOAD.GEAR BASE	A B C
16	QYTPST2620Z	TAP SCREW,X2,L.G.BASE	A B C
18	LP40798-001A	LOAD.GEAR(SUPPLY) ASSY	A B C
18A	LP21040-001A	LOAD.GEAR(SUPPLY)	A B C
18B	LP40799-001A	LOAD.ARM(SUPPLY) ASSY	A B C
19	LP40837-001A	TORSION SPRING(S),L.GEAR(S)	A B C
20	LP40903-002B	FIXING PLATE	A B C
21	LP40806-001D	POLE BASE ASSY(SUPPLY)	A B C
22	LP30959-002B	LOAD GEAR	A B C
23	LP40802-001C	LOAD.GEAR(TAKE UP) ASSY	A B C
23A	LP21041-001D	LOAD.GEAR(TAKE UP)	A B C
23B	LP40803-001A	LOAD.ARM(TAKE UP) ASSY	A B C
24	LP40838-001A	TORSION SPRING(T),L.GEAR(T)	A B C
26	LP40808-001E	POLE BASE ASSY(TAKE UP)	A B C
30	LP31020-004B	ARM BASE	A B C
31	QYTDST2606Z	TAP SCREW	A B C
36	LP21055-001F	TU LEVER	A B C
37	LP40943-001A	TENSION SPRING	A B C
38	LP40859-001D	T-UP HEAD	A B C
39	LP30961-001C	LID GUIDE	A B C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION	A	B	C
	42	LP40810-001B	PINCH ROLLER ARM ASSY	A	B	C
	44	LP40840-001D	TORSION SPRING,P.ROLLER	A	B	C
	46	LP30963-001B	PRESS LEVER	A	B	C
	47	PQM30017-24	SLIT WASHER,P.LEVER	A	B	C
	48	LP40930-002E	S-SWITCH	A	B	C
	49	LP40813-001D	GUIDE ARM ASSY	A	B	C
	50	LP40841-001A	TORSION SPRING,G.ARM	A	B	C
	51	LP30002-090A	SPACER,CAPSTAN MOTOR	A	B	C
	52	QAH0081-001	AC HEAD	A	B	C
	53	LP30965-001A	HEAD BASE	A	B	C
	55	LP40842-001D	COMPRESSION SPRING	A	B	C
	56	QYTDST2006M	TAP SCREW,A/C HEAD	A	B	C
	57	LP41036-001A	A/C ADJ.SCREW,X2,A/C HEAD	A	B	C
	58	QYTDST2606Z	TAP SCREW,X2,A/C HEAD	A	B	C
	59	QAR0023-001	LOADING MOTOR	A	B	C
	60	QYTPSP3003Z	SCREW,X2,L.MOTOR	A	B	C
	61	LP21056-002J	MOTOR BRACKET	A	B	C
	62	QYTPST2620Z	TAP SCREW,M.BKT	A	B	C
	63	LP40814-001B	WORM BEARING	A	B	C
	64	LP21044-001E	CONTROL CAM	A	B	C
	65	PQM30017-24	SLIT WASHER,CTL.CAM	A	B	C
	66	LP40815-001A	WORM GEAR	A	B	C
	67	LP40816-001B	HELICAL GEAR,M.BKT	A	B	C
	68	LP40817-001A	CONNECT GEAR	A	B	C
	69	LP10400-001J	CONTROL PLATE	A	B	C
	70	LP40843-001A	TORSION SPRING	A	B	C
	71	LP40818-001B	TENSION ARM ASSY	A	B	C
	72	LP40844-001E	TENSION SPRING,T.ARM	A	B	C
	73	LP21045-001D	TENSION ARM BASE	A	B	C
	74	LP40821-001A	TENSION BAND ASSY	A	B	C
	75	LP30967-001B	BAND HOLDER-1	A	B	C
	76	LP30968-001C	BAND HOLDER-2	A	B	C
	77	LP40822-002B	ADJUST PIN	A	B	C
	78	LP31000-005E	TENSION ARM LEVER	A	B	C
	79	LP21046-001C	MAIN BRAKE(TAKE UP)	A	B	C
	80	LP40824-001A	BAND BRAKE ASSY	A	B	C
	81	LP30969-002B	BRAKE LEVER	A	B	C
	82	LP30003-033B	TENSION SPRING,BRK LEVER	A	B	C
	83	LP30003-035B	TENSION SPRING,BRK LEVER	A	B	C
	84	LP40825-001B	CAPSTAN BRAKE ASSY	A	B	C
⚠	85	QAR0224-002	CAPSTAN MOTOR	A	B	C
	86	QYTPSG2606Z	TAP SCREW,X3,CAP.MOTOR	A	B	C
	87	LP30005-010A	BELT,CAPSTAN MOTOR	A	B	C
	88	LP30970-001A	IDLER ARM	A	B	C
	89	LP40828-004A	IDLER GEAR 1,X2	A	B	C
	90	LP40829-001B	IDLER GEAR 2,X2	A	B	C
	91	LP31014-001A	WIRE HOLDER	A	B	C
	93	LP40934-001B	CLUTCH UNIT	A	B	C
	94	PQM30017-47	SLIT WASHER,CLUT.UNIT	A	B	C
	95	LP30973-001A	DIRECT GEAR	A	B	C
	96	LP40939-001A	COMPRESION SPRING,DIR.GEAR	A	B	C
	102	LP30974-001C	CHANGE LEVER	A	B	C
	105	LP21049-001A	REEL DISK,X2	A	B	C
	107	LP30017-004A	SPACER,X2,REEL DISK	A	B	C
	110	LP10401-001H	SIDE FRAME(L)	A	B	C
	111	LP10402-001K	SIDE FRAME(R)	A	B	C
	112	QYTDST2606Z	TAP SCREW,X2,FOR MECHA	A	B	C
	113	LP40917-001D	TORSION SPRING,FOR DUMP.	A	B	C
	114	LP30976-001E	SIDE PLATE	A	B	C
	115	LP30977-002D	LIMIT PLATE	A	B	C
	116	LP40846-001C	LIMIT SPRING,SIDE PLATE	A	B	C
	117	LP31100-001B	DRIVE LEVER	A	B	C
	118	LP30978-001B	DRIVE ARM(L)	A	B	C
	119	LP30979-001P	DRIVE ARM(R)	A	B	C
	120	LP40847-001B	TORSION SPRING,D.ARM(R)	A	B	C
	121	LP30980-001E	CONNECT PLATE	A	B	C
	122	LP10403-001C	SIDE HOLDER(L)	A	B	C
	123	LP10404-001E	SIDE HOLDER(R)	A	B	C
	124	LP30983-001B	LOCK LEVER(L)	A	B	C
	125	LP30984-001B	LOCK LEVER(R)	A	B	C
	126	LP40924-001D	TENSION SPRING,X2,L.LEVER	A	B	C
	127	LP40972-001A	EARTH SPRING(1)	A	B	C
	128	LP40857-001B	EARTH SPRING(2),TOP FRAME	A	B	C
	130	LP30981-001G	CASSETTE HOLDER ASSY	A	B	C
	134	LP21051-002C	REC SAFETY LEVER	A	B	C
	137	LP21052-001J	TOP FRAME	A	B	C
	151	LP30985-001G	DOOR OPENER,SIDE FRM(R)	A	B	C
	161	LP40993-001A	TAPE GUIDE	A	B	C
	WR1	WJT0059-001D	E-CARD WIRE,CAP MOTOR	A	B	C
	WR2	WJT0067-001B	E-CARD WIRE,A/C HEAD	A	B	C
	WR3	WJS0022-001A	E-FL/RB WIRE,L.MOTOR	A	B	C

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MAIN BOARD ASSEMBLY <03>

PW1 MAIN BOARD ASS'Y<03> includes the parts shown in the following.
PW1 3D D/2M BOARD ASS'Y<05>
PW1 TERMINAL BOARD ASS'Y<06>
PW1 DEMOD BOARD ASS'Y<14>

	PW1	LPA10170-07B	MAIN BOARD ASSY	A		
	PW1	LPA10170-11B	MAIN BOARD ASSY		B	
	PW1	LPA10170-14A	MAIN BOARD ASSY			C
	IC1	JCP8051-MSA	IC,VIDEO	A	B	C
	IC201	LC74776-9791	IC	A	B	
	IC201	LC74789N-9865	IC(OSD)			C
	IC2201	AN3651FBP	IC	A	B	C
	IC3001	HD6432194SBD35F	IC(MCU),MAIN CPU	A	B	
	IC3001	HD6432194SAD37F	IC(MCU),MAIN CPU			C
	IC3001 or	HD64F2194CFD35	IC(MCU),MAIN CPU	A	B	
	IC3001 or	HD64F2194CFD37	IC(MCU),MAIN CPU			C
	IC3002	IC-PST3427U-X	IC,RESET	A	B	C
	IC3003	*(REFER TO BELOW)	IC,EEPROM(32K)	A	B	C
	IC7002	GP1UM291QK	IR DETECT UNIT	A	B	C
	Q7	2SC4081/QRS/-X	TRANSISTOR,RF EQ(S)	A	B	C
	Q7 or	2PC4081/R/-X	TRANSISTOR	A	B	C
	Q8	2SC4081/QRS/-X	TRANSISTOR,RF EQ(S)	A	B	C
	Q8 or	2PC4081/R/-X	TRANSISTOR	A	B	C
	Q9	2SA1576A/QR/-X	TRANSISTOR,RF EQ(S)	A	B	C
	Q9 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q10	2SA1576A/QR/-X	TRANSISTOR,FSC BUF	A	B	C
	Q10 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q16	DTC144WUA-X	DIGI TRANSISTOR,DEMP(SP/EP)	A	B	C
	Q16 or	UN521E-X	DIGI TRANSISTOR	A	B	C
	Q16 or	RN1309-X	DIGI TRANSISTOR	A	B	C
	Q16 or	PDTC144WU-X	DIGI TRANSISTOR	A	B	C
	Q21	2SA1576A/QR/-X	TRANSISTOR,PB C BUF	A	B	C
	Q21 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q24	2SA1576A/QR/-X	TRANSISTOR,2FSC BUF	A	B	C
	Q24 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q25	DTC144WUA-X	DIGI TRANSISTOR,C.K.(3D)	A	B	C

* S8960EX : LPN0797-001B-04 The VCR goes to jig RCU mode after replacing the EEPROM and the VCR does not accept some RCU command.
S8965EK : LPN0797-004B-05 Therefore please set the VCR to the user RCU mode after replacing the EEPROM.
S8960AG : LPN0813-001A-02 The method of setting the VCR to the user RCU mode is written on the service manual.

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION	A B C
Q25	or UN521E-X	DIGI TRANSISTOR	A B C
Q25	or RN1309-X	DIGI TRANSISTOR	A B C
Q25	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q38	2SC4081/QRS/-X	TRANSISTOR,Y BDL	A B C
Q38	or 2PC4081/R/-X	TRANSISTOR	A B C
Q41	DTC144WUA-X	DIGI TRANSISTOR,MESECAM	A B C
Q41	or UN521E-X	DIGI TRANSISTOR	A B C
Q41	or RN1309-X	DIGI TRANSISTOR	A B C
Q41	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q50	DTC144WUA-X	DIGI TRANSISTOR,EE(L)	A B C
Q50	or UN521E-X	DIGI TRANSISTOR	A B C
Q50	or RN1309-X	DIGI TRANSISTOR	A B C
Q50	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q207	2SA1576A/QR/-X	TRANSISTOR,OSD OUT	A B C
Q207	or 2PA1576/R/-X	TRANSISTOR,OSD OUT	A B C
Q208	2SC4081/QRS/-X	TRANSISTOR,OSD OUT	A B C
Q208	or 2PC4081/R/-X	TRANSISTOR,OSD OUT	A B C
Q401	2SA1576A/QR/-X	TRANSISTOR	A B C
Q402	2SA1576A/QR/-X	TRANSISTOR	A B C
Q403	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q403	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q403	or UN521E-X	DIGI TRANSISTOR	A B C
Q403	or RN1309-X	DIGI TRANSISTOR	A B C
Q404	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q404	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q404	or UN521E-X	DIGI TRANSISTOR	A B C
Q404	or RN1309-X	DIGI TRANSISTOR	A B C
Q405	2SA1576A/QR/-X	TRANSISTOR	A B C
Q2001	2SC4081/QRS/-X	TRANSISTOR	A B C
Q2001	or 2SD1819A/QRS/-X	TRANSISTOR	A B C
Q2001	or 2PC4081/R/-X	TRANSISTOR	A B C
Q2002	2SC4081/QRS/-X	TRANSISTOR	A B C
Q2002	or 2SD1819A/QRS/-X	TRANSISTOR	A B C
Q2002	or 2PC4081/R/-X	TRANSISTOR	A B C
Q2003	DTA144WUA-X	DIGI TRANSISTOR	A B C
Q2003	or UN511E-X	DIGI TRANSISTOR	A B C
Q2003	or RN2309-X	D TRANSISTOR	A B C
Q2003	or PDTA144WU-X	DIGI TRANSISTOR	A B C
Q2004	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2004	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2004	or UN521E-X	DIGI TRANSISTOR	A B C
Q2004	or RN1309-X	DIGI TRANSISTOR	A B C
Q2051	2SC4081/QRS/-X	TRANSISTOR	A B C
Q2051	or 2SD1819A/QRS/-X	TRANSISTOR	A B C
Q2051	or 2PC4081/R/-X	TRANSISTOR	A B C
Q2052	2SA1576A/QR/-X	TRANSISTOR	A B C
Q2052	or 2SB1218A/QR/-X	TRANSISTOR	A B C
Q2052	or 2PA1576/R/-X	TRANSISTOR	A B C
Q2053	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2053	or UN521E-X	DIGI TRANSISTOR	A B C
Q2053	or RN1309-X	DIGI TRANSISTOR	A B C
Q2053	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2054	2SA1576A/QR/-X	TRANSISTOR	A B C
Q2054	or 2SB1218A/QR/-X	TRANSISTOR	A B C
Q2054	or 2PA1576/R/-X	TRANSISTOR	A B C
Q2055	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2055	or UN521E-X	DIGI TRANSISTOR	A B C
Q2055	or RN1309-X	DIGI TRANSISTOR	A B C
Q2055	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2061	2SC4081/QRS/-X	TRANSISTOR	A B C
Q2061	or 2SD1819A/QRS/-X	TRANSISTOR	A B C
Q2061	or 2PC4081/R/-X	TRANSISTOR	A B C
Q2062	2SA1576A/QR/-X	TRANSISTOR	A B C
Q2062	or 2SB1218A/QR/-X	TRANSISTOR	A B C
Q2062	or 2PA1576/R/-X	TRANSISTOR	A B C
Q2063	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2063	or UN521E-X	DIGI TRANSISTOR	A B C
Q2063	or RN1309-X	DIGI TRANSISTOR	A B C
Q2063	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2201	DTA144WUA-X	DIGI TRANSISTOR	A B C
Q2201	or PDTA144WU-X	DIGI TRANSISTOR	A B C
Q2201	or UN511E-X	DIGI TRANSISTOR	A B C
Q2201	or RN2309-X	D TRANSISTOR	A B C
Q2202	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2202	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2202	or UN521E-X	DIGI TRANSISTOR	A B C
Q2202	or RN1309-X	DIGI TRANSISTOR	A B C
Q2203	2SC4081/QRS/-X	TRANSISTOR	A B C
Q2203	or 2PC4081/R/-X	TRANSISTOR	A B C
Q2203	or 2SD1819A/QRS/-X	TRANSISTOR	A B C
Q2204	2SC4081/QRS/-X	TRANSISTOR	A B C
Q2204	or 2PC4081/R/-X	TRANSISTOR	A B C
Q2204	or 2SD1819A/QRS/-X	TRANSISTOR	A B C
Q2251	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2251	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2251	or UN521E-X	DIGI TRANSISTOR	A B C
Q2251	or RN1309-X	DIGI TRANSISTOR	A B C
Q2252	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2252	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2252	or UN521E-X	DIGI TRANSISTOR	A B C
Q2252	or RN1309-X	DIGI TRANSISTOR	A B C
Q2253	DTC144WUA-X	DIGI TRANSISTOR	A B C
Q2253	or PDTC144WU-X	DIGI TRANSISTOR	A B C
Q2253	or UN521E-X	DIGI TRANSISTOR	A B C
Q2253	or RN1309-X	DIGI TRANSISTOR	A B C
Q2254	DTC114EUA-X	DIGI TRANSISTOR	A B C
Q2254	or PDTC114EU-X	DIGI TRANSISTOR	A B C
Q2254	or UN5211-X	DIGI TRANSISTOR	A B C
Q2254	or RN1302-X	DIGI TRANSISTOR	A B C
Q2255	DTC114EUA-X	DIGI TRANSISTOR	A B C
Q2255	or PDTC114EU-X	DIGI TRANSISTOR	A B C
Q2255	or UN5211-X	DIGI TRANSISTOR	A B C
Q2255	or RN1302-X	DIGI TRANSISTOR	A B C
Q3002	PTZ-NV16A	IC(PHOTO SENSOR,STA.SENSOR	A B C
Q3003	PTZ-NV16A	IC(PHOTO SENSOR,END SENSOR	A B C
Q3004	2SD1819A/QRS/-X	TRANSISTOR,POWER DET	A B C
Q3004	or 2SC4081/QRS/-X	TRANSISTOR,POWER DET	A B C
Q3004	or 2PC4081/R/-X	TRANSISTOR,POWER DET	A B C
Q3005	2SD1819A/QRS/-X	TRANSISTOR,SVCC	A B C
Q3005	or 2SC4081/QRS/-X	TRANSISTOR,SVCC	A B C
Q3005	or 2PC4081/R/-X	TRANSISTOR,SVCC	A B C
Q3007	UN521E-X	DIGI TRANSISTOR,P50	A B
Q3007	or DTC144WUA-X	DIGI TRANSISTOR,P50	A B
Q3007	or PDTC144WU-X	DIGI TRANSISTOR,P50	A B
Q3007	or RN1309-X	DIGI TRANSISTOR,P50	A B
Q4001	UN5211-X	DIGI TRANSISTOR	A B C
Q4001	or DTC114EUA-X	DIGI TRANSISTOR	A B C
Q4001	or RN1302-X	DIGI TRANSISTOR	A B C
Q4001	or PDTC114EU-X	DIGI TRANSISTOR	A B C
Q5101	2SK2632-CB14	POWER MOS FET	A B C
Q5101	or 2SK2129-LT	POWER MOS FET	A B C
Q5101	or 2SK2632	POWER MOS FET	A B C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION	A	B	C
	Q5101 or	2SK2129	POWER MOS FET	A	B	C
	Q5102	2SD2144S/UV/-T	TRANSISTOR	A	B	C
	Q5301	2SC1740S/RS/-T	TRANSISTOR	A	B	C
	Q5301 or	2SC3199/YG/-T	TRANSISTOR	A	B	C
	Q5303	2SC5739/QP/	TRANSISTOR,SW5V	A	B	C
	Q5304	2SD2144S/UV/-T	TRANSISTOR,SW12V	A	B	C
	Q5305	DTA114EUA-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5305 or	UN5111-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5305 or	RN2302-X	D TRANSISTOR,SW12V	A	B	C
	Q5305 or	PDTA114EU-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5306	DTC114EUA-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5306 or	UN5211-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5306 or	RN1302-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5306 or	PDTC114EU-X	DIGI TRANSISTOR,SW12V	A	B	C
	Q5307	2SD2144S/UV/-T	TRANSISTOR,RF5V	A	B	C
	Q6030	2SB1218A/QR/-X	TRANSISTOR,V BUFF	A	B	C
	Q6030 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q6030 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q6031	DTC114EUA-X	DIGI TRANSISTOR	A	B	C
	Q6031 or	UN5211-X	DIGI TRANSISTOR	A	B	C
	Q6031 or	RN1302-X	DIGI TRANSISTOR	A	B	C
	Q6031 or	PDTC114EU-X	DIGI TRANSISTOR	A	B	C
	Q6032	DTC114EUA-X	DIGI TRANSISTOR	A	B	C
	Q6032 or	UN5211-X	DIGI TRANSISTOR	A	B	C
	Q6032 or	RN1302-X	DIGI TRANSISTOR	A	B	C
	Q6032 or	PDTC114EU-X	DIGI TRANSISTOR	A	B	C
	Q7001	2SB1218A/QR/-X	TRANSISTOR	A	B	C
	Q7001 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7001 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7002	2SB1218A/QR/-X	TRANSISTOR	A	B	C
	Q7002 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7002 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7003	2SB1218A/QR/-X	TRANSISTOR	A	B	C
	Q7003 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7003 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7004	2SB1218A/QR/-X	TRANSISTOR	A	B	C
	Q7004 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7004 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7005	2SB1218A/QR/-X	TRANSISTOR	A	B	C
	Q7005 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7005 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7006	2SB1218A/QR/-X	TRANSISTOR,V15 7SEG	A	B	C
	Q7006 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7006 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7007	2SB1218A/QR/-X	TRANSISTOR,V15 7SEG	A	B	C
	Q7007 or	2SA1576A/QR/-X	TRANSISTOR	A	B	C
	Q7007 or	2PA1576/R/-X	TRANSISTOR	A	B	C
	Q7008	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7008 or	UN5216-X	D TRANSISTOR	A	B	C
	Q7009	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7009 or	UN5216-X	D TRANSISTOR	A	B	C
	Q7010	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7010 or	UN5216-X	D TRANSISTOR	A	B	C
	Q7011	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7011 or	UN5216-X	D TRANSISTOR	A	B	C
	Q7012	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7012 or	UN5216-X	D TRANSISTOR	A	B	C
	Q7013	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7013 or	UN5216-X	D TRANSISTOR	A	B	C
	Q7014	DTC143TUA-X	DIGI TRANSISTOR	A	B	C
	Q7014 or	UN5216-X	D TRANSISTOR	A	B	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
	Q7201	2SC1317/RS/-T	TRANSISTOR		A	B	
	D1	QUY153-050Y	IM BUS WIRE,ESD		A	B	C
	D201	QRE141J-152Y	C RESISTOR,OSD CS	1.5kΩ,1/4W	A	B	
	D201	1SS133-T2	SI DIODE,OSD CS				C
	D202	QRE141J-101Y	C RESISTOR,S.CLK	100Ω,1/4W	A	B	
	D202	1SS133-T2	SI DIODE,S.CLK				C
	D203	QRE141J-101Y	C RESISTOR,S.DATA	100Ω,1/4W	A	B	
	D203	1SS133-T2	SI DIODE,S.DATA				C
	D2251	1SS133-T2	SI DIODE		A	B	C
	D2251 or	1SS270A-T2	SI DIODE		A	B	C
	D3001	LNB2301L01VI	IR LED,LED		A	B	C
	D3002	1SS133-T2	SI DIODE		A	B	C
	D3002 or	1SS270A-T2	SI DIODE		A	B	C
	D3003	RD39ES/B3/-T2	Z DIODE,POWER DET		A	B	C
	D3003 or	MTZJ39C-T2	Z DIODE,POWER DET		A	B	C
	D3004	11ES2-T2	SI DIODE,BU5V		A	B	C
	D3004 or	1A3G-T2	SI DIODE,BU5V		A	B	C
	D3005	11ES2-T2	SI DIODE,AL5V		A	B	C
	D3005 or	1A3G-T2	SI DIODE,AL5V		A	B	C
⚠	D3007	RB721Q-40-T2	SB DIODE,LITH BATT				C
	D3008	1SS355-X	SI DIODE,P50		A	B	
	D4001	QUY153-050Y	IM BUS WIRE		A	B	C
	D4002	QUY153-050Y	IM BUS WIRE		A	B	C
	D5001	S1WB/A/60-4102	BRIDGE DIODE		A	B	C
	D5001 or	S1WB/A/60-X	BRIDGE DIODE		A	B	C
	D5001 or	S1WB(A)60F4072X	BRIDGE DIODE		A	B	C
	D5101	AU01-T2	SI DIODE		A	B	C
	D5101 or	1SR153-400-T2	FR DIODE		A	B	C
	D5101 or	ERA18-04-T2	FR DIODE		A	B	C
	D5101 or	10ELS4-T2	FR DIODE		A	B	C
	D5102	AU01-T2	SI DIODE		A	B	C
	D5102 or	1SR153-400-T2	FR DIODE		A	B	C
	D5102 or	ERA18-04-T2	FR DIODE		A	B	C
	D5102 or	10ELS4-T2	FR DIODE		A	B	C
	D5103	1SS133-T2	SI DIODE		A	B	C
	D5103 or	1SS270A-T2	SI DIODE		A	B	C
	D5105	1SS133-T2	SI DIODE		A	B	C
	D5105 or	1SS270A-T2	SI DIODE		A	B	C
	D5203	AU01Z-T2	FR DIODE		A	B	C
	D5203 or	10ELS2-T2	FR DIODE		A	B	C
	D5204	AU01Z-T2	FR DIODE		A	B	C
	D5204 or	10ELS2-T2	FR DIODE		A	B	C
	D5207	AK04-T2	SB DIODE,6V		A	B	C
	D5207 or	11EQS04-T2	SB DIODE,6V		A	B	C
	D5207 or	1S4-T2	SB DIODE,6V		A	B	C
	D5207 or	SBO40-T2	SB DIODE,6V		A	B	C
	D5209	AK04-T2	SB DIODE,6V		A	B	C
	D5209 or	11EQS04-T2	SB DIODE,6V		A	B	C
	D5209 or	1S4-T2	SB DIODE,6V		A	B	C
	D5209 or	SBO40-T2	SB DIODE,6V		A	B	C
	D5210	AU01Z-T2	FR DIODE,BT2		A	B	C
	D5210 or	ERA18-02-T2	FR DIODE,BT2		A	B	C
	D5210 or	1SR153-400-T2	FR DIODE,BT2		A	B	C
	D5210 or	10ELS2-T2	FR DIODE,BT2		A	B	C
	D5210 or	PG104RS-T2	FR DIODE,BT2		A	B	C
	D5301	MTZJ15C-T2	Z DIODE		A	B	C
	D5301 or	RD15ES/B3/-T2	Z DIODE		A	B	C
	D5302	MTZJ11C-T2	Z DIODE,SW12V		A	B	C
	D5302 or	RD11ES/B3/-T2	Z DIODE,SW12V		A	B	C
	D5303	MTZJ5.6A-T2	Z DIODE		A	B	C
	D5303 or	RD5.6ES/B1/-T2	Z DIODE		A	B	C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
D5305	MTZJ5.6C-T2	Z DIODE,SW5V		A B C
D5305 or	RD5.6ES/B3/-T2	Z DIODE,SW5V		A B C
D6002	HZ30-2L-T2	Z.DIODE		A B C
D6002 or	HZ30-2LTD	Z DIODE (M)		A B C
D7051	1SS133-T2	SI DIODE,ESD		A B C
D7051 or	1SS270A-T2	SI DIODE,ESD		A B C
R1	NRSA02J-622X	MG RESISTOR	6.2kΩ,1/10W	A B C
R2	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A B C
R3	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A B C
R5	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R6	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A B C
R7	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B C
R10	QRE141J-103Y	C RESISTOR	10kΩ,1/4W	A B C
R25	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R26	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R27	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B C
R28	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B C
R29	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B C
R31	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A B C
R32	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R35	NDC21HJ-470X	C CAPACITOR	47pF,50V	A B C
R36	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A B C
R38	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A B C
R39	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	C
R40	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R41	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A B C
R42	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B C
R46	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R48	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R51	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B C
R52	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R77	NRSA02J-223X	MG RESISTOR	22kΩ,1/10W	A B C
R78	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B C
R84	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R88	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R90	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A B C
R93	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A B C
R104	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R117	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A B C
R118	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R201	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R202	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R203	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	C
R204	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	C
R208	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A B
R208	MRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	C
R209	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B
R210	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A B
R211	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A B
R212	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R213	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R216	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R220	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	C
R224	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R225	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R226	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R401	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B C
R402	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B C
R403	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B C
R404	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R405	NRSA02J-683X	MG RESISTOR	68kΩ,1/10W	A B C
R406	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A B C
R407	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R408	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2041	QRE141J-0R0	C RESISTOR	0Ω,1/4W	A B C
R2003	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R2005	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A B C
R2007	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R2008	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R2010	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A B C
R2013	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2014	NRSA02J-224X	MG RESISTOR	220kΩ,1/10W	A B C
R2015	NRSA02J-181X	MG RESISTOR	180Ω,1/10W	A B C
R2016	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A B C
R2017	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R2018	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2019	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2020	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2053	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A B C
R2054	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A B C
R2055	NRSA02J-3R3X	MG RESISTOR	3.3Ω,1/10W	A B C
R2056	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A B C
R2057	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2058	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R2059	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2060	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R2061	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A B C
R2062	NRSA02J-3R3X	MG RESISTOR	3.3Ω,1/10W	A B C
R2063	QRE141J-151Y	C RESISTOR	150Ω,1/4W	A B C
R2064	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2065	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R2201	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2202	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2203	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2204	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2205	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2206	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2207	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2208	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2209	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B C
R2210	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2211	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B C
R2212	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B C
R2213	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2214	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B C
R2215	NRSA02J-181X	MG RESISTOR	180Ω,1/10W	A B C
R2216	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B C
R2217	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2218	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A B C
R2219	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B C
R2220	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R2222	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2223	NRSA02J-511X	MG RESISTOR	510Ω,1/10W	A B C
R2224	NRSA02J-511X	MG RESISTOR	510Ω,1/10W	A B C
R2225	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2226	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A B C
R2227	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A B C
R2228	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A B C
R2229	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A B C
R2230	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C
R2231	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2232	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A B C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
R2233	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R2234	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R2235	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B
R2236	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B
R2237	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A B
R2238	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B
R2251	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R2252	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B C
R2253	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R2254	QRE141J-103Y	C RESISTOR	10kΩ,1/4W	A B C
R2255	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A B C
R2256	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A B C
R3011	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B
R3013	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3014	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3015	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3016	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3017	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3018	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B
R3019	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3020	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3021	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3022	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3025	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3026	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3027	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3029	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3030	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3031	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B
R3032	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3033	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B
R3034	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3035	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3036	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3037	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3038	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A B C
R3039	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3040	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3041	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3042	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3044	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B
R3046	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3047	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3048	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3049	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3050	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3051	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3052	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R3053	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R3054	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3055	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3056	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3057	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3058	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3059	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3060	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3061	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3062	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3063	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3066	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3069	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
R3071	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3072	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3073	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3074	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3075	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R3076	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R3077	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B
R3078	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3079	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3080	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R3081	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3083	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3085	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3086	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3087	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3088	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3089	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3090	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3091	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3092	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3093	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3094	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3095	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3096	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3097	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3103	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3104	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3105	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3106	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R3205	QRE141J-181Y	C RESISTOR	180Ω,1/4W	A B C
R3206	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W	A B C
R3207	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R3208	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A B C
R3209	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R3210	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A B C
R3211	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W	A B C
R3212	NRSA02J-474X	MG RESISTOR	470kΩ,1/10W	A B C
R3213	NRSA02J-334X	MG RESISTOR	330kΩ,1/10W	A B C
R3214	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3215	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3216	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3217	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3218	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3219	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3220	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A B C
R3222	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3223	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3224	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3225	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3229	NRSA02J-105X	MG RESISTOR	1MΩ,1/10W	A B C
R3230	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R3231	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R3233	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3234	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3235	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A B C
R3236	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A B C
R3237	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3238	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3241	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R3242	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B
R3252	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A B C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
R3253	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R4003	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B C
R4004	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A B C
R4005	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A B C
R4007	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R4008	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R4009	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R4010	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R4012	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A B C
R4013	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B C
R4015	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A B C
R4017	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R5101	QRE141J-224Y	C RESISTOR	220kΩ,1/4W	A B C
R5102	QRE141J-224Y	C RESISTOR	220kΩ,1/4W	A B C
R5103	QRE141J-683Y	C RESISTOR	68kΩ,1/4W	A B C
R5104	QRG02GJ-683	OMF RESISTOR	68kΩ,2W	A B C
R5106	QRT01DJ-R39X	MF RESISTOR	0.39Ω,1W	A B C
R5107	QRE121J-331Y	C RESISTOR	330Ω,1/2W	A B C
R5108	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A B C
R5109	QRE141J-561Y	C RESISTOR	560Ω,1/4W	A B C
R5110	NRSA02J-224X	MG RESISTOR	220kΩ,1/10W	A B C
R5111	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A B C
R5112	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B C
R5302	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R5303	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B C
R5304	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A B C
R5306	NRSA02J-181X	MG RESISTOR	180Ω,1/10W	A B C
R5310	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R5312	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R5313	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R5319	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B C
R5332	QRL02DJ-391X	OMF RESISTOR	390Ω,2W	A B C
R6020	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R6021	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R6030	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R6031	NRSA02J-271X	MG RESISTOR	270Ω,1/10W	A B C
R6032	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R6033	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A B C
R6050	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R6051	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A B C
R6052	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R6080	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R6056	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R7001	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B C
R7002	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B C
R7003	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B C
R7004	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R7005	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B C
R7006	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B C
R7007	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B C
R7015	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A B C
R7020	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R7021	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B C
R7022	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A B C
R7023	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A B C
R7024	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B C
R7025	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B C
R7026	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A B C
R7030	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A B C
R7031	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B C
R7032	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A B C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
R7033	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A B C
R7034	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A B C
R7160	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R7161	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R7162	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B C
R7163	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A B C
R7202	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B
R7203	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A B
R7204	QRE121J-100Y	C RESISTOR	10Ω,1/2W	A B
VR2251	QVP0039-223Z	TRIM RESISTOR		A B C
B5	NRSA02J-0R0X	MG RESISTOR,PB FM BUF	0Ω,1/10W	A B C
B10	NRSA02J-0R0X	MG RESISTOR,C IN(SVHS)	0Ω,1/10W	A B C
B13	QUY160-180Y	IM BUS WIRE,V.REF		A B C
B65	NRSA02J-0R0X	MG RESISTOR,TITLE REC	0Ω,1/10W	A B C
B203	QUY160-100Y	IM BUS WIRE,I2C CLK2		A B
B204	QUY160-080Y	IM BUS WIRE,I2C DATA2		A B
B214	NRSA02J-0R0X	MG RESISTOR,RF VIDEO	0Ω,1/10W	A B C
B2221	QUY160-140Y	IM BUS WIRE,AL5V		A B C
B3001	QUY160-060Y	IM BUS WIRE,ICT		A B C
B5001	QUY160-100Y	IM BUS WIRE,OPT:LF5001		A B C
B5002	QUY160-100Y	IM BUS WIRE,OPT:LF5001		A B C
B7160	NRSA02J-0R0X	MG RESISTOR,LITH BATT	0Ω,1/10W	C
C1	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C2	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C3	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C4	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C5	QEKC0JM-476Z	E CAPACITOR	47μF,6.3V	A B C
C6	QDYB1CM-103Y	C CAPACITOR	0.01μF,16V	A B C
C7	NCB21HK-102X	C CAPACITOR	0.001μF,50V	A B C
C8	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C9	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A B C
C10	NDC21HJ-151X	C CAPACITOR	150pF,50V	A B C
C11	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C12	NDC21HJ-8R0X	C CAPACITOR	8pF,50V	A B C
C14	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C15	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C
C16	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C17	QEKJ1HM-335Z	E CAPACITOR	3.3μF,50V	A B C
C19	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A B C
C20	QEPF1HM-105Z	BP E CAPACITOR	1μF,50V	A B C
C21	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C22	QEKJ0JM-476Z	E CAPACITOR	47μF,6.3V	A B C
C23	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C
C24	QCBB1HK-104Y	C CAPACITOR	0.1μF,50V	A B C
C25	NDC21HJ-6R0X	C CAPACITOR	6pF,50V	A B C
C26	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C
C27	NCB21HK-223X	C CAPACITOR	0.022μF,50V	A B C
C28	QEKJ1HM-335Z	E CAPACITOR	3.3μF,50V	A B C
C29	NCB21EK-333X	C CAPACITOR	0.033μF,25V	A B C
C30	NCB21CK-474X	C CAPACITOR	0.47μF,16V	A B C
C31	QEKJ0JM-476Z	E CAPACITOR	47μF,6.3V	A B C
C32	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C
C33	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A B C
C34	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A B C
C35	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C
C36	QEKJ1HM-475Z	E CAPACITOR	4.7μF,25V	A B C
C37	QEKJ1HM-105Z	E CAPACITOR	1μF,50V	A B C
C38	QEKJ0JM-476Z	E CAPACITOR	47μF,6.3V	A B C
C40	QEKJ1EM-106Z	E CAPACITOR	10μF,25V	A B C
C44	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C
C45	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A B C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
C53	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C59	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C61	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C63	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B	C
C64	NDC21HJ-220X	C CAPACITOR	22pF,50V	A	B	C
C65	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	C
C72	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	B	C
C73	NDC21HJ-120X	C CAPACITOR	12pF,50V	A	B	C
C80	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C84	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W	A	B	C
C92	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	C
C103	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C106	NCB21HK-821X	C CAPACITOR	820pF,50V	A	B	C
C108	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	C
C110	NDC21HJ-820X	C CAPACITOR	82pF,50V	A	B	C
C114	NDC21HJ-181X	C CAPACITOR	180pF,50V	A	B	C
C201	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V	A	B	
C201	QEKJ0JM-107Z	E CAPACITOR	100µF,6.3V			C
C204	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C206	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	C
C207	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	C
C209	NCB21CK-474X	C CAPACITOR	0.47µF,16V	A	B	
C209	NCB21CK-224X	C CAPACITOR	0.22µF,16V			C
C210	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C211	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C212	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B	
C213	QERF1EM-475Z	E CAPACITOR	4.7µF,25V	A	B	
C214	NCB21CK-224X	C CAPACITOR	0.22µF,16V	A	B	C
C215	NCB21CK-224X	C CAPACITOR	0.22µF,16V	A	B	
C217	NDC21HJ-560X	C CAPACITOR	56pF,50V	A	B	C
C218	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	C
C222	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	C
C225	QERF1AM-227Z	E CAPACITOR	220µF,10V	A	B	
C401	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C402	NCB21HK-223X	C CAPACITOR	0.022µF,50V	A	B	C
C403	NDC21HJ-131X	C CAPACITOR	130pF,50V	A	B	C
C404	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	B	C
C406	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B	C
C407	NDC21HJ-150X	C CAPACITOR	15pF,50V	A	B	C
C2001	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
C2002	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	C
C2003	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
C2005	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
C2006	NCB21HK-123X	C CAPACITOR	0.012µF,50V	A	B	C
C2007	QEKJ1CM-226Z	E CAPACITOR	22µF,16V	A	B	C
C2008	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
C2009	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B	C
C2010	NCB21HK-152X	C CAPACITOR	0.0015µF,50V	A	B	C
C2011	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
C2012	QEKC1HM-475Z	E CAPACITOR	4.7µF,50V	A	B	C
C2013	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	C
C2017	NCB21HK-682X	C CAPACITOR	0.0068µF,50V	A	B	C
C2051	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	C
C2052	QFLC1HJ-333Z	M CAPACITOR	0.033µF,50V	A	B	C
C2053	NCB21HK-332X	C CAPACITOR	0.0033µF,50V	A	B	C
C2054	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2055	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2061	QFV91HJ-333Z	MF CAPACITOR	0.033µF,50V	A	B	C
C2062	NCB21HK-332X	C CAPACITOR	0.0033µF,50V	A	B	C
C2063	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2064	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
C2201	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2202	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
C2203	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
C2204	QEKJ0JM-336Z	E CAPACITOR	33µF,6.3V	A	B	C
C2205	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2206	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2207	NCB21HK-153X	C CAPACITOR	0.015µF,50V	A	B	C
C2208	NCB21HK-153X	C CAPACITOR	0.015µF,50V	A	B	C
C2209	QERF1CM-106Z	E CAPACITOR	10µF,16V	A	B	C
C2210	QERF1CM-106Z	E CAPACITOR	10µF,16V	A	B	C
C2211	QEKJ0JM-336Z	E CAPACITOR	33µF,6.3V	A	B	C
C2212	QERF0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
C2214	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2215	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2216	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B	C
C2218	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2219	QEKJ1CM-226Z	E CAPACITOR	22µF,16V	A	B	C
C2220	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C2221	NCB21EK-223X	C CAPACITOR	0.022µF,25V	A	B	C
C2222	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2223	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B	C
C2224	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B	C
C2225	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	
C2226	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	
C2227	QERF1CM-106Z	E CAPACITOR	10µF,16V	A	B	C
C2230	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	
C2231	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	
C2251	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2252	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2253	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2254	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
C2255	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2256	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2257	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C2258	NDC21HJ-181X	C CAPACITOR	180pF,50V	A	B	C
C2259	QEKJ1HM-334Z	E CAPACITOR	0.33µF,50V	A	B	C
C2261	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C2262	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C3008	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C3011	QETL0JM-338	E CAPACITOR	3300µF,6.3V	A	B	
C3011	QETN0JM-108Z	E CAPACITOR	1000µF,6.3V			C
C3012	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
C3014	QERF0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
C3015	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B	C
C3016	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B	C
C3020	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C3021	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
C3022	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B	C
C3024	NDC21HJ-220X	C CAPACITOR	22pF,50V	A		C
C3024	NDC21HJ-120X	C CAPACITOR	12pF,50V		B	
C3025	QAT3725-300Z	TRIM CAPACITOR			A	C
C3026	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
C3027	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
C3030	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
C3031	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B	
C3033	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B	C
C3034	NDC21HJ-101X	C CAPACITOR	100pF,50V			C
C3035	NDC21HJ-101X	C CAPACITOR	100pF,50V			C
C3036	NDC21HJ-180X	C CAPACITOR	18pF,50V	A	B	C
C3037	NDC21HJ-120X	C CAPACITOR	12pF,50V	A	B	C
C3040	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
	C3041	NDC21HJ-150X	C CAPACITOR	15pF,50V		B	
	C3050	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C3071	QEKJ1CM-336Z	E CAPACITOR	33µF,16V	A	B	C
	C4002	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C4004	QEKJ1AM-226Z	E CAPACITOR	22µF,10V	A	B	C
	C4005	NCB21HK-222X	C CAPACITOR	0.0022µF,50V	A	B	C
	C4006	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
	C4007	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B	C
	C4008	NCB21AK-105X	C CAPACITOR	1µF,10V	A	B	C
	C4009	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B	C
	C4010	NCB21EK-223X	C CAPACITOR	0.022µF,25V	A	B	C
	C4011	NCB21EK-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C4012	QERF1HM-105Z	E CAPACITOR	1µF,50V	A	B	C
	C4014	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	C
	C4015	NCB21HK-102X	C CAPACITOR	0.001µF,50V	A	B	C
	C4031	QEKJ1CM-336Z	E CAPACITOR	33µF,16V	A	B	C
⚠	C5001	QFZ9072-473	MM CAPACITOR	0.047µF,125V	A	B	C
⚠	C5004	QCZ9071-222	C CAPACITOR	0.0022µF,250V	A	B	C
	C5006	QEZ0375-686	E CAPACITOR	68µF,400V	A	B	C
	C5101	QCZ0212-472	C CAPACITOR	0.0047µF,1kV	A	B	C
	C5102	QCZ0302-330Z	C CAPACITOR	33pF,1kV	A	B	C
	C5104	QEKJ1HM-105Z	E CAPACITOR	1µF,50V	A	B	C
	C5105	QFN31HJ-153Z	M CAPACITOR	0.015µF,50V	A	B	C
	C5106	QCBB1HJ-271Y	C CAPACITOR	270pF,50V	A	B	C
	C5107	QFV91HJ-104Z	MF CAPACITOR	0.1µF,50V	A	B	C
	C5202	QETN1CM-108Z	E CAPACITOR	1000µF,16V	A	B	C
	C5203	QEMT1AM-128	E CAPACITOR	1200µF,10V	A	B	C
	C5204	QETJ2AM-475Z	E CAPACITOR	4.7µF,10V	A	B	C
	C5206	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B	C
	C5207	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B	C
	C5301	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B	C
	C5303	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B	C
	C5305	QFVF1HJ-274Z	MF CAPACITOR	0.27µF,50V	A	B	C
	C5307	QEKJ1CM-476Z	E CAPACITOR	47µF,16V	A	B	C
	C5308	QEKJ1CM-107Z	E CAPACITOR	100µF,16V	A	B	C
	C6013	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
	C6032	NCB21EK-473X	C CAPACITOR	0.047µF,25V	A	B	C
	C6037	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
	C6055	NDC21HJ-220X	C CAPACITOR	22pF,50V	A	B	C
	C6056	NDC21HJ-470X	C CAPACITOR	47pF,50V	A	B	C
	C6501	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
	C6502	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
	C7011	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A	B	C
	C7165	NCB21HK-681X	C CAPACITOR	680pF,50V	A	B	C
	C7167	NCB21HK-681X	C CAPACITOR	680pF,50V	A	B	C
	C7202	QETJ0JM-477Z	E CAPACITOR	470µF,6.3V	A	B	
	L1	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L2	QQL071J-121Y	INDUCTOR	120µH	A	B	C
	L3	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L4	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L5	QQR0521-012Z	NOISE FILTER		A	B	C
	L12	QQR0967-001	CHOKE COIL	12µH	A	B	C
	L13	QQL071J-330Y	INDUCTOR	33µH	A	B	C
	L15	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L18	QQL071J-220Y	INDUCTOR	22µH	A	B	C
	L19	QQL071J-120Y	INDUCTOR	12µH	A	B	C
	L20	QUY153-050Y	IM BUS WIRE		A	B	C
	L22	QQL231J-1R0Y	INDUCTOR	1.0µH	A	B	C
	L24	QQL071J-270Y	INDUCTOR	27µH	A	B	C
	L27	QQL071J-330Y	INDUCTOR	33µH	A	B	C
	L28	QQL071J-680Y	INDUCTOR	68µH	A	B	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
	L201	QQL29BK-1R0Z	P COIL	1.0µH	A	B	C
	L202	QUY153-050Y	IM BUS WIRE		A	B	
	L202	QQL071J-270Y	INDUCTOR	27µH			C
	L203	QQL29BJ-220Z	P COIL	22µH	A	B	C
	L204	QQL29BJ-100Z	P COIL	10µH	A	B	
	L206	QQL071J-220Y	INDUCTOR	22µH	A	B	C
	L401	QQL071J-150Y	INDUCTOR	15µH	A	B	C
	L402	QUY153-050Y	IM BUS WIRE		A	B	C
	L2001	QUY153-050Y	IM BUS WIRE		A	B	C
	L2201	QUY153-050Y	IM BUS WIRE		A	B	C
	L2251	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L2252	QQL29BJ-151Z	P COIL	150µH	A	B	C
	L4001	QUY153-050Y	IM BUS WIRE		A	B	C
	L5201	PELN1184	CHOKE COIL	33µH	A	B	C
	L5202	PELN1184	CHOKE COIL	33µH	A	B	C
	L6001	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L6002	QQL29BJ-100Z	P COIL	10µH	A	B	C
	L6501	QUY153-050Y	IM BUS WIRE		A	B	C
	L7201	QQL29BJ-100Z	P COIL	10µH	A	B	
	X1	QAX0576-001Z	CRYSTAL,PAL		A	B	C
	X2	QCBB1HK-103Y	C CAPACITOR,NTSC	0.01µF,50V	A	B	
	X2	QAX0575-001Z	CRYSTAL,NTSC				C
	X3001	QAX0445-001	CRYSTAL,32K ADJ		A	B	C
	X3002	QAX0527-001	CRYSTAL		A	B	C
	S3001	QSW0602-004	PUSH SWITCH,REC.SAFETY		A	B	C
	S3002	QSW0602-004	PUSH SWITCH,S.CASS		A	B	C
	S7002	QSW0456-002Z	TACT SWITCH,POWER		A	B	C
	S7003	QSW0456-002Z	TACT SWITCH,INSERT		A	B	C
	S7004	QSW0456-002Z	TACT SWITCH,REC LINK		A	B	C
	S7006	QSW0456-002Z	TACT SWITCH,SVHS ET		A	B	C
	S7010	QSW0456-002Z	TACT SWITCH,REC		A	B	C
	S7011	QSW0456-002Z	TACT SWITCH,PAUSE		A	B	C
	S7013	QSW0456-002Z	TACT SWITCH,STOP/EJ		A	B	C
	S7015	QSW0456-002Z	TACT SWITCH,PLAY		A	B	C
	S7017	QSW0456-002Z	TACT SWITCH,A.DUB		A	B	C
	K2001	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B	C
	K2002	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B	C
	K2003	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B	C
	K2004	NRSA02J-0R0X	MG RESISTOR,SET1	0Ω,1/10W	A	B	C
	K2251	NQR0007-001X	FERRITE BEADS		A	B	
	K2251	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W			C
	K2252	NQR0007-001X	FERRITE BEADS		A	B	
	K2252	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W			C
	K2253	NQR0007-001X	FERRITE BEADS		A	B	C
	K5101	QQR0678-001Z	FERRITE BEADS		A	B	C
	K5102	QUY153-050Y	IM BUS WIRE		A	B	C
	PC3001	RPI-304J	IC(PHOTO SENSOR),SP REEL		A	B	C
	PC3002	RPI-304J	IC(PHOTO SENSOR),TU REEL		A	B	C
⚠	PC5101	PC123Y22	IC(PHOTO COUPLE)		A	B	C
	T2051	PELN0860	OSC TRANS		A	B	C
	T2052	PELN0861	OSC TRANS		A	B	C
⚠	T5001	QQS0083-001	SW TRANSF		A	B	C
	TU6001	QAU0261-002	TUNER,15ALPS3SYS		A	B	C
	SD1	LP21105-001A	SHIELD CASE,FOR P/R		A	B	C
	DI7001	LTG-0126M-03J	LED		A	B	C
	ET1	PQ21623-2-5	EARTH PLATE(RF),FOR TUNER		A	B	C
	HS1	LP40090-001A	HEAT SINK,FOR Q5101		A	B	C
	JS3001	QSW0954-002	ROTARY ENCODER,R.ENCODER		A	B	C
	J7105	QNN0383-002	PIN JACK,GOLD YWR		A	B	C
	OT1	QYTDSF3010Z	TAP SCREW,X2,FOR TERM_B		A	B	C
	OT2	PU59915-110	#500SPACER0.014,R2041		A	B	C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
	OT3	QYTDST3006Z	TAP SCREW,FOR Q5101		A	B	C
	FC5001	QNG0006-001Z	FUSE CLIP,FOR F5001		A	B	C
	FC5002	QNG0006-001Z	FUSE CLIP,FOR F5001		A	B	C
⚠	LF5002	QQR0978-001	LINE FILTER		A	B	C
⚠	CP3001	QMFZ050-1R5X-E	FUSE	T1.5A,125V	A	B	C
⚠	CP4001	QMFZ050-1R5X-E	FUSE	T1.5A,125V	A	B	C
	TP106	QUY160-100Y	IM BUS WIRE,PB FM		A	B	C
	TP111	QUY160-100Y	IM BUS WIRE,D.FF		A	B	C
	TP2253	QUY160-100Y	IM BUS WIRE,A.PB FM		A	B	C
	TP2254	QUY160-100Y	IM BUS WIRE,A.REC.FM		A	B	C
	TP4001	QUY160-100Y	IM BUS WIRE,CTL.P		A	B	C
	CN1	QGF1201C2-11	FPC CONNE,DRUM 1-11		A	B	C
	CN901	QGB2024K1-10S	B TO B CONNE,TERMINAL		A	B	C
	CN902	QGB2024K1-12S	B TO B CONNE,TERMINAL		A	B	C
	CN903	QGB2024K1-10S	B TO B CONNE,TERMINAL		A	B	C
	CN904	QGB2024K1-11S	B TO B CONNE,TERMINAL		A	B	C
	CN905	QGB2024K1-09S	B TO B CONNE,TERMINAL		A	B	C
	CN2001	QGF1207C1-06	FPC CONNE,A/C HEAD		A	B	C
	CN2002	QGB2532J1-02	B TO B CONNE,FE HEAD		A	B	C
	CN3001	QGB2032M4-12	B TO B CONNE,CAP+DRUM M		A	B	C
⚠	CN5001	QGA7901C3-02	W TO B CONNE,POWER CORD		A	B	C
	CN7002	QGF1207C1-04	FPC CONNE,A.JOG V16		A	B	C
⚠	F5001	QMF51E2-2R0J1	FUSE	T2.0A,AC250V	A	B	C

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3D DIGITAL/2M BOARD ASSEMBLY <05>

	PW1	LPA10105-09A	3D D/2M BOARD ASSY		A	B	
	PW1	LPA10105-07A	3D D/2M BOARD ASSY				C
	IC1401	JCP8026	IC		A	B	C
⚠	Q1401	2SC1317/RS/-T	TRANSISTOR		A	B	C
	Q1402	2SA1576A/QR/-X	TRANSISTOR		A	B	C
	Q1402 or	2PA1576/R/-X	TRANSISTOR		A	B	C
	Q1406	2SA1576A/QR/-X	TRANSISTOR		A	B	C
	Q1406 or	2PA1576/R/-X	TRANSISTOR		A	B	C
	Q1408	2SC4081/S/-X	TRANSISTOR		A	B	C
	Q1410	2SC4081/QRS/-X	TRANSISTOR		A	B	C
	Q1410 or	2PC4081/R/-X	TRANSISTOR		A	B	C
	Q1412	2SA1576A/QR/-X	TRANSISTOR		A	B	C
	Q1412 or	2PA1576/R/-X	TRANSISTOR		A	B	C
	Q1418	2SA1576A/QR/-X	TRANSISTOR		A	B	C
	Q1418 or	2PA1576/R/-X	TRANSISTOR		A	B	C
	Q1419	DTC124TUA-X	DIGI TRANSISTOR		A	B	C
	D1401	RD4.3ES/B3/-T2	Z DIODE		A	B	C
	D1401 or	MTZJ4.3B-T2	Z DIODE		A	B	C
	D1402	1SS133-T2	SI DIODE		A	B	C
	D1402 or	1N4148M-T2	DIODE		A	B	C
	R1401	NRSA02J-121X	MG RESISTOR	120Ω,1/10W	A	B	C
	R1402	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B	C
	R1404	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B	C
	R1406	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B	C
	R1410	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A	B	C
	R1411	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W	A	B	C
	R1413	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A	B	C
	R1415	NRVA02D-221X	CMF RESISTOR	220Ω,1/10W	A	B	C
	R1416	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	A	B	C
	R1417	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B	C
	R1418	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A	B	C
	R1421	NRSA02J-331X	MG RESISTOR	330Ω,1/10W	A	B	C
	R1426	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A	B	C
	R1427	NRSA02J-333X	MG RESISTOR	33kΩ,1/10W	A	B	C
	R1428	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W	A	B	C
	R1429	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W	A	B	C
	R1430	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W	A	B	C
	R1431	NRSA02J-821X	MG RESISTOR	820Ω,1/10W	A	B	C
	R1433	NRSA02J-510X	MG RESISTOR	51Ω,1/10W	A	B	C
	R1434	NRVA02D-153X	CMF RESISTOR	15Ω,1/10W	A	B	C
	R1435	NRVA02D-473X	CMF RESISTOR	47kΩ,1/10W	A	B	C
	R1436	NRVA02D-393X	CMF RESISTOR	39Ω,1/10W	A	B	C
	R1437	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A	B	C
	R1438	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B	C
	R1439	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A	B	C
	R1440	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W	A	B	C
	R1445	NRVA02D-393X	CMF RESISTOR	39Ω,1/10W	A	B	C
	R1446	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	C
	R1447	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	C
	R1448	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	C
	R1449	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	C
	R1450	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	C
	R1452	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A	B	C
	R1453	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	C
	R1455	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B	C
	R1459	NRSA02J-681X	MG RESISTOR	680Ω,1/10W	A	B	C
	R1460	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W	A	B	C
	VR1401	QUY153-050Y	IM BUS WIRE			B	C
	B1401	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B	C
	B1412	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B	C
	C1401	QEKJ1CM-336Z	E CAPACITOR	33µF,16V	A	B	C
	C1403	QEKJ0JM-337Z	E CAPACITOR	330µF,6.3V	A	B	C
	C1404	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1405	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1406	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
	C1407	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	C
	C1408	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	C
	C1410	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A	B	C
	C1411	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1412	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	C
	C1413	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	C
	C1415	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1416	QEKJ1EM-106Z	E CAPACITOR	10µF,25V	A	B	C
	C1417	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1418	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	
	C1421	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	C
	C1422	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	C
	C1423	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1424	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
	C1425	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
	C1426	NDC21HJ-390X	C CAPACITOR	39pF,50V	A	B	C
	C1428	NDC21HJ-220X	C CAPACITOR	22pF,50V	A	B	C
	C1429	QEKJ0JM-337Z	E CAPACITOR	330µF,6.3V	A	B	C
	C1430	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1432	NCF21CZ-105X	C CAPACITOR	1µF,16V	A	B	C
	C1433	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1435	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1436	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1437	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1438	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1439	NCB21HK-103X	C CAPACITOR	0.01µF,50V	A	B	C
	C1440	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1441	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A	B	C
	C1442	NCF21CZ-105X	C CAPACITOR	1µF,16V	A	B	C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
C1444	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1445	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1446	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B C
C1447	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1448	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V	A B C
C1449	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1450	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1451	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V	A B C
C1452	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1453	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1454	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1463	QEKJ0JM-336Z	E CAPACITOR	33µF,6.3V	A B C
C1468	NDC21HJ-101X	C CAPACITOR	100pF,50V	A B C
C1470	NDC21HJ-330X	C CAPACITOR	33pF,50V	A B C
C1471	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1472	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
C1473	NCF21EZ-104X	C CAPACITOR	0.1µF,25V	A B C
L1401	QUY153-050Y	IM BUS WIRE		A B C
L1402	QQL071J-6R8Y	INDUCTOR	6.8µH	A B C
L1403	QQL071J-6R8Y	INDUCTOR	6.8µH	A B C
L1404	QQL071J-6R8Y	INDUCTOR	6.8µH	A B C
L1405	QQL29BJ-100Z	P COIL	10µH	A B C
L1406	QQL071J-330Y	INDUCTOR	33µH	A B C
L1407	QQL29BJ-100Z	P COIL	10µH	A B C
L1409	QQL071J-1R0Y	INDUCTOR	1.0µH	A B C
⚠ LC1401	QQL29BJ-101Z	P COIL,M/I	100µH	A B C
LC1402	QQR0521-006Z	NOISE FILTER		A B C
SD1	LP30706-001C	SHIELD FRAME(S-VHS)		A B
SD1	LP30706-001D	SHIELD FRAME(S-VHS)		C
SD2	LP30684-001A	SHIELD CASE(S-VHS)		A B C
CN1401	QQG2502K1-17	HEADER PIN		A B C

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TERMINAL BOARD ASSEMBLY <06> [HR-S8960EX, HR-S8965EK]

PW1	LPA10138-08A	TERM BOARD ASSY,S2EU/EK	A B
IC501	JCP8018	IC	A B
IC501 or	JCP8028	IC	A B
IC501 or	JCP8028-01	IC	A B
IC501 or	JCP8038	IC	A B
IC502	VC2076DP	IC	A B
IC901	BH7636S	IC,CH+	A B
Q901	UN5211-X	DIGI TRANSISTOR	A B
Q901 or	DTC114EUA-X	DIGI TRANSISTOR	A B
Q901 or	RN1302-X	DIGI TRANSISTOR	A B
Q901 or	PDTC114EU-X	DIGI TRANSISTOR	A B
Q902	2SB1218A/QR/-X	TRANSISTOR	A B
Q902 or	2SA1576A/QR/-X	TRANSISTOR	A B
Q902 or	2PA1576/R/-X	TRANSISTOR	A B
Q903	2SB1218A/QR/-X	TRANSISTOR,S OUT	A B
Q903 or	2SA1576A/QR/-X	TRANSISTOR,S OUT	A B
Q903 or	2PA1576/R/-X	TRANSISTOR,S OUT	A B
Q904	2SB1218A/QR/-X	TRANSISTOR,S OUT	A B
Q904 or	2SA1576A/QR/-X	TRANSISTOR,S OUT	A B
Q904 or	2PA1576/R/-X	TRANSISTOR,S OUT	A B
Q905	UN521E-X	DIGI TRANSISTOR	A B
Q905 or	DTC144WUA-X	DIGI TRANSISTOR	A B
Q905 or	RN1309-X	DIGI TRANSISTOR	A B
Q905 or	PDTC144WU-X	DIGI TRANSISTOR	A B

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C
Q906	2SD1819A/QRS/-X	TRANSISTOR		A B
Q906 or	2SC4081/QRS/-X	TRANSISTOR		A B
Q906 or	2PC4081/R/-X	TRANSISTOR		A B
Q907	2SD1819A/QRS/-X	TRANSISTOR		A B
Q907 or	2SC4081/QRS/-X	TRANSISTOR		A B
Q907 or	2PC4081/R/-X	TRANSISTOR		A B
Q908	2SD1819A/QRS/-X	TRANSISTOR		A B
Q908 or	2SC4081/QRS/-X	TRANSISTOR		A B
Q908 or	2PC4081/R/-X	TRANSISTOR		A B
Q909	2SB1218A/QR/-X	TRANSISTOR		A B
Q909 or	2SA1576A/QR/-X	TRANSISTOR		A B
Q909 or	2PA1576/R/-X	TRANSISTOR		A B
Q910	2SB1218A/QR/-X	TRANSISTOR		A B
Q910 or	2SA1576A/QR/-X	TRANSISTOR		A B
Q910 or	2PA1576/R/-X	TRANSISTOR		A B
Q911	UN521E-X	DIGI TRANSISTOR		A B
Q911 or	DTC144WUA-X	DIGI TRANSISTOR		A B
Q911 or	RN1309-X	DIGI TRANSISTOR		A B
Q911 or	PDTC144WU-X	DIGI TRANSISTOR		A B
Q912	UN5215-X	DIGI TRANSISTOR		A B
Q912 or	DTC114TUA-X	DIGI TRANSISTOR		A B
Q912 or	RN1311-X	D TRANSISTOR		A B
Q912 or	PDTC114TU-X	DIGI TRANSISTOR		A B
R503	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	A B
R504	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A B
R505	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	A B
R506	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	A B
R507	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	A B
R508	NRSA02J-151X	MG RESISTOR	150Ω,1/10W	A B
R509	NRSA02J-162X	MG RESISTOR	1.6kΩ,1/10W	A B
R510	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W	A B
R511	NRVA02D-471X	CMF RESISTOR	470Ω,1/10W	A B
R512	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W	A B
R513	NRVA02D-152X	CMF RESISTOR	1.5kΩ,1/10W	A B
R514	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W	A B
R515	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W	A B
R516	QUY160-100Y	IM BUS WIRE		A B
R517	QUY160-100Y	IM BUS WIRE		A B
R525	QRE141J-125Y	C RESISTOR	1.2MΩ,1/4W	A B
R527	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A B
R531	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R532	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R533	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R534	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R535	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R536	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R901	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A B
R902	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A B
R903	QRE141J-680Y	C RESISTOR	68Ω,1/4W	A B
R904	NQL402M-4R7X	INDUCTOR	4.7µH	A B
R905	NQL402M-4R7X	INDUCTOR	4.7µH	A B
R906	QQL231J-100Y	INDUCTOR	10µH	A B
R907	QQL231J-100Y	INDUCTOR	10µH	A B
R908	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A B
R909	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A B
R910	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A B
R911	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A B
R912	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R913	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A B
R914	QQL231J-100Y	INDUCTOR	10µH	A B
R915	QQL231J-100Y	INDUCTOR	10µH	A B

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
R916	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	
R917	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B	
R918	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B	
R919	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R920	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R921	QRE121J-391Y	C RESISTOR	390Ω,1/2W	A	B	
R922	QRE121J-391Y	C RESISTOR	390Ω,1/2W	A	B	
R923	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B	
R924	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B	
R929	NRSA02J-820X	MG RESISTOR	82Ω,1/10W	A	B	
R930	NRSA02J-750X	MG RESISTOR	75Ω,1/10W	A	B	
R931	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B	
R932	NRSA02J-511X	MG RESISTOR	510Ω,1/10W	A	B	
R933	NRSA02J-471X	MG RESISTOR	470Ω,1/10W	A	B	
R934	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R935	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R936	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R937	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R938	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R939	QRE141J-101Y	C RESISTOR	100Ω,1/4W	A	B	
R940	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	A	B	
R941	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B	
R942	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W	A	B	
R943	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	A	B	
R944	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W	A	B	
R945	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	A	B	
R946	NRSA02J-561X	MG RESISTOR	560Ω,1/10W	A	B	
R947	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	A	B	
R949	QRE121J-331Y	C RESISTOR	330Ω,1/2W	A	B	
R951	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	A	B	
R952	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B	
R953	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	A	B	
R964	NRSA02J-101X	MG RESISTOR	100Ω,1/10W	A	B	
C501	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A	B	
C502	QEKJ1HM-475Z	E CAPACITOR	4.7μF,25V	A	B	
C503	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A	B	
C504	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A	B	
C505	QEKJ1HM-475Z	E CAPACITOR	4.7μF,25V	A	B	
C506	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C507	QEKJ0JM-476Z	E CAPACITOR	47μF,6.3V	A	B	
C508	QEKJ1HM-474Z	E CAPACITOR	0.47μF,50V	A	B	
C509	QEKJ1CM-106Z	E CAPACITOR	10μF,16V	A	B	
C510	QEKJ0JM-476Z	E CAPACITOR	47μF,6.3V	A	B	
C511	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C512	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C513	QEKJ1HM-475Z	E CAPACITOR	4.7μF,25V	A	B	
C514	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C515	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C516	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C518	NCB21EK-104X	C CAPACITOR	0.1μF,25V	A	B	
C519	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A	B	
C520	QEKJ1HM-475Z	E CAPACITOR	4.7μF,25V	A	B	
C521	QEKJ1HM-475Z	E CAPACITOR	4.7μF,25V	A	B	
C522	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A	B	
C523	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	A	B	
C524	NDC21HG-301X	C CAPACITOR	300pF,50VG	A	B	
C525	NDC21HG-301X	C CAPACITOR	300pF,50VG	A	B	
C526	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	
C527	NDC21HJ-181X	C CAPACITOR	180pF,50V	A	B	
C528	NDC21HG-271X	C CAPACITOR	270pF,50VG	A	B	
C529	NDC21HG-820X	C CAPACITOR	82pF,50VG	A	B	

#! REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
C530	NDC21HG-221X	C CAPACITOR	220pF,50VG	A	B	
C531	NDC21HG-301X	C CAPACITOR	300pF,50VG	A	B	
C532	NDC21HG-301X	C CAPACITOR	300pF,50VG	A	B	
C533	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C534	QEKJ0JM-476Z	E CAPACITOR	47μF,6.3V	A	B	
C535	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C551	QEKJ1HM-105Z	E CAPACITOR	1μF,50V	A	B	
C553	QCBB1HK-103Y	C CAPACITOR	0.01μF,50V	A	B	
C554	QEKJ1HM-105Z	E CAPACITOR	1μF,50V	A	B	
C556	QCBB1HK-103Y	C CAPACITOR	0.01μF,50V	A	B	
C557	QEKJ1HM-105Z	E CAPACITOR	1μF,50V	A	B	
C559	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C560	QEKJ1HM-105Z	E CAPACITOR	1μF,50V	A	B	
C561	QEKJ1HM-105Z	E CAPACITOR	1μF,50V	A	B	
C563	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C568	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	
C569	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	
C570	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	
C571	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	
C572	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	
C573	NDC21HJ-680X	C CAPACITOR	68pF,50V	A	B	
C575	NDC21HJ-101X	C CAPACITOR	100pF,50V	A	B	
C901	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C902	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C903	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C904	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C905	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C906	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C907	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C908	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C910	NCB21HK-102X	C CAPACITOR	0.001μF,50V	A	B	
C912	NCB21HK-102X	C CAPACITOR	0.001μF,50V	A	B	
C913	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C914	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C915	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C916	NCB21HK-223X	C CAPACITOR	0.022μF,50V	A	B	
C917	NCB21HK-223X	C CAPACITOR	0.022μF,50V	A	B	
C918	QCBB1HK-223Y	C CAPACITOR	0.22μF,50V	A	B	
C921	NDC21HJ-330X	C CAPACITOR	33pF,50V	A	B	
C923	QEKJ1CM-476Z	E CAPACITOR	47μF,16V	A	B	
C924	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C925	NCB21HK-223X	C CAPACITOR	0.022μF,50V	A	B	
C927	QEKJ1CM-476Z	E CAPACITOR	47μF,16V	A	B	
C928	NCB21HK-103X	C CAPACITOR	0.01μF,50V	A	B	
C931	QEKJ1EM-106Z	E CAPACITOR	10μF,25V	A	B	
C935	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C936	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C937	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C938	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C939	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C940	NCB21HK-471X	C CAPACITOR	470pF,50V	A	B	
C941	QEKJ0JM-227Z	E CAPACITOR	220μF,6.3V	A	B	
C942	QEKJ1CM-476Z	E CAPACITOR	47μF,16V	A	B	
C943	QEKJ1CM-107Z	E CAPACITOR	100μF,16V	A	B	
C945	QEKJ1EM-106Z	E CAPACITOR	10μF,25V	A	B	
C946	QEKJ1EM-106Z	E CAPACITOR	10μF,25V	A	B	
C950	QEKJ0JM-227Z	E CAPACITOR	220μF,6.3V	A	B	
C951	QEKC1CM-476Z	E CAPACITOR	47μF,16V	A	B	
C958	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
C959	NCB21HK-331X	C CAPACITOR	330pF,50V	A	B	
L501	QQL29BJ-100Z	P COIL	10μH	A	B	

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
L503	QQL29BJ-100Z	P COIL	10µH	A	B	
L504	QQL29BJ-100Z	P COIL	10µH	A	B	
L505	QUY153-050Y	IM BUS WIRE		A	B	
L901	QQL231J-R22Y	INDUCTOR	0.22µH	A	B	
L902	QQL071J-1R0Y	INDUCTOR	1.0µH	A	B	
L903	QQL071J-150Y	INDUCTOR	15µH	A	B	
L904	QQL071J-150Y	INDUCTOR	15µH	A	B	
L906	QUY153-050Y	IM BUS WIRE		A	B	
L907	QUY153-050Y	IM BUS WIRE		A	B	
L910	QQL071J-1R0Y	INDUCTOR	1.0µH	A	B	
L913	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L914	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L915	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L916	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L917	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L918	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L919	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
L920	QQL071J-4R7Y	INDUCTOR	4.7µH	A	B	
J901	PEMC1177	RGB21PIN SOCKET,AV1		A	B	
J902	PEMC1177	RGB21PIN SOCKET,AV2		A	B	
J904	QND0084-001	S JACK,S OUT		A	B	
J915	QNN0418-003	PIN JACK,A.OUT(L)		A	B	
J916	QNN0418-002	PIN JACK,A.OUT(R)		A	B	
J921	PU60659	MINI JACK,SAT.CTL		A	B	
J922	PU60659	MINI JACK,PAUSE/RAE		A	B	
⚠ TB1	LP21028-002A	TERMINAL BOARD		A	B	
ET1	LP30918-001A	EARTH PLATE,FOR EMC		A	B	
ET2	LP30915-001A	EARTH PLATE		A	B	
OT1	QYTDSF3008Z	TAP SCREW,X6		A	B	
CN911	QGB2024J1-10S	B TO B CONNE		A	B	
CN912	QGB2024J1-12S	B TO B CONNE		A	B	
CN913	QGB2024J1-10S	B TO B CONNE		A	B	
CN914	QGB2024J1-11S	B TO B CONNE		A	B	
CN915	QGB2024J1-09S	B TO B CONNE		A	B	
CN916	QGF1208F1-04	FPC CONNE,FRONT S IN		A	B	

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TERMINAL BOARD ASSEMBLY <06> [HR-S8960AG]

PW1	LPA10138-06A	TERMINAL BOARD ASSY		C
IC501	JCP8018	IC		C
IC501 or	JCP8028	IC		C
IC501 or	JCP8028-01	IC		C
IC501 or	JCP8038	IC		C
IC502	VC2076DP	IC		C
Q903	2SB1218A/QR/-X	TRANSISTOR,S OUT		C
Q903 or	2SA1576A/QR/-X	TRANSISTOR		C
Q903 or	2PA1576/R/-X	TRANSISTOR		C
Q904	2SB1218A/QR/-X	TRANSISTOR,S OUT		C
Q904 or	2SA1576A/QR/-X	TRANSISTOR		C
Q904 or	2PA1576/R/-X	TRANSISTOR		C
Q910	2SB1218A/QR/-X	TRANSISTOR		C
Q910 or	2SA1576A/QR/-X	TRANSISTOR		C
Q910 or	2PA1576/R/-X	TRANSISTOR		C
R503	NRSA02J-221X	MG RESISTOR	220Ω,1/10W	C
R504	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	C
R505	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	C
R506	NRSA02J-391X	MG RESISTOR	390Ω,1/10W	C
R507	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
R508	NRSA02J-151X	MG RESISTOR	150Ω,1/10W			C
R509	NRSA02J-162X	MG RESISTOR	1.6kΩ,1/10W			C
R510	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W			C
R511	NRVA02D-471X	CMF RESISTOR	470Ω,1/10W			C
R512	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W			C
R513	NRVA02D-152X	CMF RESISTOR	1.5kΩ,1/10W			C
R514	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W			C
R515	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W			C
R516	QUY160-100Y	IM BUS WIRE				C
R517	QUY160-100Y	IM BUS WIRE				C
R525	QRE141J-125Y	C RESISTOR	1.2MΩ,1/4W			C
R527	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W			C
R533	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W			C
R534	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W			C
R535	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W			C
R536	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W			C
R917	NRSA02J-101X	MG RESISTOR	100Ω,1/10W			C
R918	NRSA02J-101X	MG RESISTOR	100Ω,1/10W			C
R919	QRE141J-101Y	C RESISTOR	100Ω,1/4W			C
R920	QRE141J-101Y	C RESISTOR	100Ω,1/4W			C
R921	QRE121J-331Y	C RESISTOR	330Ω,1/2W			C
R922	QRE121J-331Y	C RESISTOR	330Ω,1/2W			C
R923	NRSA02J-750X	MG RESISTOR	75Ω,1/10W			C
R924	NRSA02J-750X	MG RESISTOR	75Ω,1/10W			C
R925	NRSA02J-750X	MG RESISTOR	75Ω,1/10W			C
R926	NRSA02J-750X	MG RESISTOR	75Ω,1/10W			C
R927	NRSA02J-750X	MG RESISTOR	75Ω,1/10W			C
R928	QRE141J-750Y	C RESISTOR	75Ω,1/4W			C
R929	NRSA02J-820X	MG RESISTOR	82Ω,1/10W			C
R930	NRSA02J-750X	MG RESISTOR	75Ω,1/10W			C
R949	QRE121J-331Y	C RESISTOR	330Ω,1/2W			C
R952	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W			C
R961	NRSA02J-101X	MG RESISTOR	100Ω,1/10W			C
R962	NRSA02J-101X	MG RESISTOR	100Ω,1/10W			C
R963	NRSA02J-101X	MG RESISTOR	100Ω,1/10W			C
R965	NRSA02J-101X	MG RESISTOR	100Ω,1/10W			C
⚠ R966	QRE141J-102Y	C RESISTOR	1kΩ,1/4W			C
C501	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V			C
C502	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V			C
C503	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V			C
C504	NCB21EK-104X	C CAPACITOR	0.1µF,25V			C
C505	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V			C
C506	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
C507	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V			C
C508	QEKJ1HM-474Z	E CAPACITOR	0.47µF,50V			C
C509	QEKJ1CM-106Z	E CAPACITOR	10µF,16V			C
C510	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V			C
C511	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
C512	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
C513	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V			C
C514	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
C515	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
C516	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
C518	NCB21EK-104X	C CAPACITOR	0.1µF,25V			C
C519	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V			C
C520	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V			C
C521	QEKJ1HM-475Z	E CAPACITOR	4.7µF,25V			C
C522	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V			C
C523	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V			C
C524	NDC21HG-301X	C CAPACITOR	300pF,50VG			C
C525	NDC21HG-301X	C CAPACITOR	300pF,50VG			C

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#!	REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C
	C526	NDC21HJ-101X	C CAPACITOR	100pF,50V			C
	C527	NDC21HJ-181X	C CAPACITOR	180pF,50V			C
	C528	NDC21HG-271X	C CAPACITOR	270pF,50VG			C
	C529	NDC21HG-820X	C CAPACITOR	82pF,50VG			C
	C530	NDC21HG-221X	C CAPACITOR	220pF,50VG			C
	C531	NDC21HG-301X	C CAPACITOR	300pF,50VG			C
	C532	NDC21HG-301X	C CAPACITOR	300pF,50VG			C
	C533	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C534	QEKJ0JM-476Z	E CAPACITOR	47µF,6.3V			C
	C535	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C554	QEKJ1HM-105Z	E CAPACITOR	1µF,50V			C
	C556	QCBB1HK-103Y	C CAPACITOR	0.01µF,50V			C
	C557	QEKJ1HM-105Z	E CAPACITOR	1µF,50V			C
	C559	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C560	QEKJ1HM-105Z	E CAPACITOR	1µF,50V			C
	C561	QEKJ1HM-105Z	E CAPACITOR	1µF,50V			C
	C563	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C910	NCB21HK-102X	C CAPACITOR	0.001µF,50V			C
	C912	NCB21HK-102X	C CAPACITOR	0.001µF,50V			C
	C913	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C914	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C928	NCB21HK-103X	C CAPACITOR	0.01µF,50V			C
	C929	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W			C
	C931	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V			C
	C941	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V			C
	C942	QEKJ1CM-476Z	E CAPACITOR	47µF,16V			C
	C948	QEKJ1CM-476Z	E CAPACITOR	47µF,16V			C
	C949	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V			C
	C950	QEKJ0JM-227Z	E CAPACITOR	220µF,6.3V			C
	C951	QEKC1CM-476Z	E CAPACITOR	47µF,16V			C
	L501	QQL29BJ-100Z	P COIL	10µH			C
	L503	QQL29BJ-100Z	P COIL	10µH			C
	L504	QQL29BJ-100Z	P COIL	10µH			C
	L903	QUY153-050Y	IM BUS WIRE				C
	L904	QUY153-050Y	IM BUS WIRE				C
	L906	QUY153-050Y	IM BUS WIRE				C
	L907	QUY153-050Y	IM BUS WIRE				C
	L912	QUY153-050Y	IM BUS WIRE				C
	L921	QUY153-050Y	IM BUS WIRE				C
	L922	QUY153-050Y	IM BUS WIRE				C
	J903	QND0084-001	S JACK,S IN				C
	J904	QND0084-001	S JACK,S OUT				C
	J911	QNN0418-004	PIN JACK,V.IN				C
	J912	QNN0418-003	PIN JACK,A.IN(L)				C
	J913	QNN0419-002	PIN JACK,A.IN(R)				C
	J914	QNN0418-004	PIN JACK,V.OUT				C
	J915	QNN0418-003	PIN JACK,A.OUT(L)				C
	J916	QNN0418-002	PIN JACK,A.OUT(R)				C
	J922	PU60659	MINI JACK,PAUSE/RAE				C
	B904	QUY160-100Y	IM BUS WIRE,RCA V OUT				C
	BT901	QNZ0032-001	BATTERY HOLDER,BT BUCK UP				C
⚠	TB1	LP21028-003A	TERMINAL BOARD				C
	OT1	QYTDSF3008Z	TAP SCREW,X2				C
	ET1	LP30918-001A	EARTH PLATE,FOR EMC				C
	ET2	LP30915-001A	EARTH PLATE				C
	CN911	QGB2024J1-10S	B TO B CONNE				C
	CN912	QGB2024J1-12S	B TO B CONNE				C
	CN913	QGB2024J1-10S	B TO B CONNE				C
	CN914	QGB2024J1-11S	B TO B CONNE				C
	CN915	QGB2024J1-09S	B TO B CONNE				C
	CN916	QGF1208F1-04	FPC CONNE,FRONT S IN				C

#!	REF No.	PART No.	PART NAME, DESCRIPTION		A	B	C

****

A/C HEAD BOARD ASSEMBLY <12>

	PW1	LPA10158-01A1	A/C HEAD BOARD ASSY		A	B	C

****

DEMOD BOARD ASSEMBLY <14> [HR-S8960EX, HR-S8965EK]

	PW1	LPA10094-09A	DEMOD BOARD ASSY			A	B
	IC6701	MSP3417G-X	IC			A	B
	IC6701 or	MSP3417GQGB8V3X	IC			A	B
	IC6701 or	MSP3417D-X	IC			A	B
	Q6701	2SC3936/BC/-X	TRANSISTOR			A	B
	D6701	1SS133-T2	SI DIODE			A	B
	D6701 or	1N4148M-T2	DIODE			A	B
	R6701	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W		A	B
	R6702	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W		A	B
	R6703	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		A	B
	R6704	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		A	B
	R6705	NRSA02J-271X	MG RESISTOR	270Ω,1/10W		A	B
	R6707	NQR0200-003X	FERRITE BEADS			A	B
	R6708	NQR0200-003X	FERRITE BEADS			A	B
	R6709	NQR0200-003X	FERRITE BEADS			A	B
	R6710	NQR0200-003X	FERRITE BEADS			A	B
	R6711	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W		A	B
	R6712	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		A	B
	R6713	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W		A	B
	R6714	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W		A	B
	R6715	NRSA02J-123X	MG RESISTOR	12kΩ,1/10W		A	B
	R6716	NQR0200-003X	FERRITE BEADS			A	B
	R6719	QRE141J-103Y	C RESISTOR	10kΩ,1/4W		A	B
	R6720	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W		A	B
	R6721	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W		A	B
	C6701	NCB21HK-103X	C CAPACITOR	0.01µF,50V		A	B
	C6704	NCB21HK-103X	C CAPACITOR	0.01µF,50V		A	B
	C6707	NDC21HJ-470X	C CAPACITOR	47pF,50V		A	B
	C6708	NDC21HJ-7R0X	C CAPACITOR	7pF,50V		A	B
	C6709	NDC21HJ-3R0X	C CAPACITOR	3pF,50V		A	B
	C6713	NCF21CZ-224X	C CAPACITOR	0.22µF,16V		A	B
	C6714	NCB21HK-222X	C CAPACITOR	0.0022µF,50V		A	B
	C6715	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V		A	B
	C6716	NCB21HK-222X	C CAPACITOR	0.0022µF,50V		A	B
	C6717	QEKJ1HM-225Z	E CAPACITOR	2.2µF,50V		A	B
	C6719	QEKJ1EM-106Z	E CAPACITOR	10µF,25V		A	B
	C6720	QEKJ1EM-106Z	E CAPACITOR	10µF,25V		A	B
	C6721	NCB21HK-103X	C CAPACITOR	0.01µF,50V		A	B
	C6723	NCB21HK-103X	C CAPACITOR	0.01µF,50V		A	B
	L6701	QUY153-050Y	IM BUS WIRE			A	B
	X6701	QAX0443-001	CRYSTAL			A	B
	K6701	NRSA02J-330X	MG RESISTOR	33Ω,1/10W		A	B
	K6702	NQR0200-003X	FERRITE BEADS			A	B
	K6703	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W		A	B
	K6704	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		A	B
	K6705	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W		A	B
	K6706	NRSA02J-470X	MG RESISTOR	47Ω,1/10W		A	B
	BK1	LP40425-001A	BRACKET(PWB)			A	B
	CN6701	QGG2502K1-10	HEADER PIN			A	B

MODEL	MARK
HR-S8960EX	A
HR-S8965EK	B
HR-S8960AG	C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C

****

DEMOD BOARD ASSEMBLY <14> [HR-S8960AG]

PW1	LPA10094-08A	DEMOD BOARD ASSY		C
IC6701	MSP3417D-X	IC		C
IC6701 or	MSP3417DG3-X	IC		C
IC6701 or	MSP3417G-X	IC		C
Q6701	2SC3936/BC/-X	TRANSISTOR		C
D6701	1SS133-T2	SI DIODE		C
D6701 or	1N4148M-T2	DIODE		C
R6701	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W	C
R6702	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W	C
R6703	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	C
R6704	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	C
R6705	NRSA02J-271X	MG RESISTOR	270Ω,1/10W	C
R6707	NQR0200-003X	FERRITE BEADS		C
R6708	NQR0200-003X	FERRITE BEADS		C
R6709	NQR0200-003X	FERRITE BEADS		C
R6710	NQR0200-003X	FERRITE BEADS		C
R6711	NRSA02J-104X	MG RESISTOR	100kΩ,1/10W	C
R6712	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	C
R6714	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	C
R6716	NQR0200-003X	FERRITE BEADS		C
R6719	QRE141J-103Y	C RESISTOR	10kΩ,1/4W	C
R6720	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	C
R6721	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W	C
C6701	NCB21HK-103X	C CAPACITOR	0.01μF,50V	C
C6703	NDC21HJ-181X	C CAPACITOR	180pF,50V	C
C6704	NCB21HK-103X	C CAPACITOR	0.01μF,50V	C
C6707	NDC21HJ-470X	C CAPACITOR	47pF,50V	C
C6708	NDC21HJ-7R0X	C CAPACITOR	7pF,50V	C
C6709	NDC21HJ-3R0X	C CAPACITOR	3pF,50V	C
C6713	NCF21CZ-224X	C CAPACITOR	0.22μF,16V	C
C6714	NCB21HK-222X	C CAPACITOR	0.0022μF,50V	C
C6715	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	C
C6716	NCB21HK-222X	C CAPACITOR	0.0022μF,50V	C
C6717	QEKJ1HM-225Z	E CAPACITOR	2.2μF,50V	C
C6719	QEKJ1EM-106Z	E CAPACITOR	10μF,25V	C
C6720	QEKJ1EM-106Z	E CAPACITOR	10μF,25V	C
C6721	NCB21HK-103X	C CAPACITOR	0.01μF,50V	C
C6723	NCB21HK-103X	C CAPACITOR	0.01μF,50V	C
L6701	QUY153-050Y	IM BUS WIRE		C
L6702	QQL231J-3R3Y	INDUCTOR	3.3μH	C
X6701	QAX0443-001	CRYSTAL		C
K6701	NRSA02J-330X	MG RESISTOR	33Ω,1/10W	C
K6702	NQR0200-003X	FERRITE BEADS		C
K6703	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	C
K6704	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W	C
K6705	NRSA02J-100X	MG RESISTOR	10Ω,1/10W	C
K6706	NRSA02J-470X	MG RESISTOR	47Ω,1/10W	C
BK1	LP40425-001A	BRACKET(PWB)		C
CN6701	QGG2502K1-10	HEADER PIN		C

#! REF No.	PART No.	PART NAME, DESCRIPTION		A B C

****

S JACK BOARD ASSEMBLY <36>

PW1	LPA20009-01B	S JACK BOARD ASSY		A B C
J7102	QND0085-001	S JACK		A B C
CN7108	QGF1209F1-04	FPC CONNE		A B C

****

ADV.JOG BOARD ASSEMBLY <39>

PW1	LPA10191-03A	ADV.JOG BOARD ASSY		A B C
R7047	QRE141J-472Y	C RESISTOR	4.7kΩ,1/4W	A B C
UN7001	QSW0938-001	ROTARY ENCODER,400K		A B C
S7030	QSW0456-002Z	TACT SWITCH,24H EXP		A B C
CN7004	QGF1209F1-04	FPC CONNE,1-4		A B C

****

LOADING MOTOR BOARD ASSEMBLY <55>

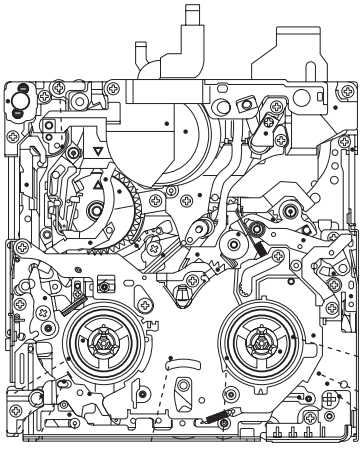
PW2	LPA10158-01A2	LOADING MOTOR BOARD ASSY		A B C

JVC

SERVICE MANUAL

MECHANISM ASSEMBLY

DVC MECHANISM
VHS-C MECHANISM
VHS MECHANISM



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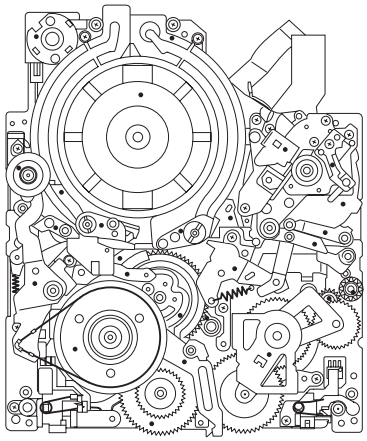

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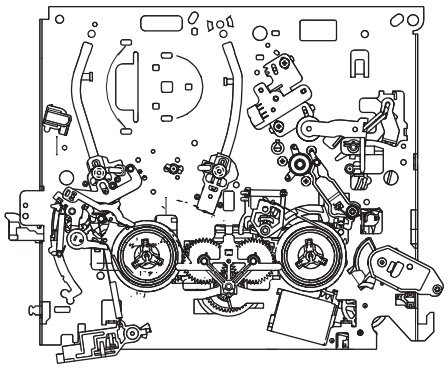

<VHS MECHANISM>

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2 SPECIFIC SERVICE INSTRUCTIONS 2-1
3 PARTS LIST 3-1

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No.86700
2003/04

SECTION 1
JIGS AND TOOLS

1.1 TOOLS REQUIRED FOR ADJUSTMENTS

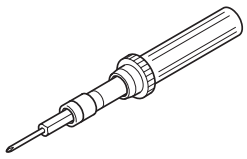
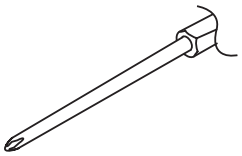
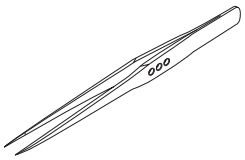
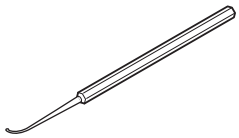
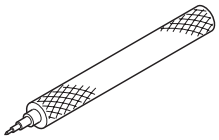
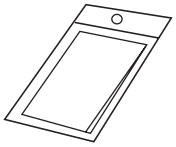
1. Torque driver YTU94088	2. Bit YTU94088-003
	
3. Tweezers P-895	4. Chip IC replacement jig PTS40844-2
	
5. Slit washer installation jig YTU94121A	6. Cleaning cloth KSMM-01
	

Fig.1-1-1

1. Torque driver
Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
Torque setting value of torque driver is limited. At the values over the maximum torque setting value, fasten a screw manually not to damage the screw thread.

2. Bit
This bit is slightly longer than those set in conventional torque drivers.

3. Tweezers
To be used for removing and installing parts and wires.

4. Chip IC replacement jig
To be used for replacement of part.

5. Slit washer installation jig
To be used to install slit washers.

6. Cleaning cloth
Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 DVC MECHANISM

2.1.1 Precautions

(1) When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.055 N•m (0.56 kgf•cm).
(2) Be sure to disconnect the set from the power supply before fastening and soldering parts.
(3) When disconnecting/connecting wires, be careful not to get them and their connectors damaged.
(4) When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

2.1.2 Notes on procedure for disassembly/assembly

The disassembling procedure table (Fig. 2-1-10 on page 2-4,a part of the table is shown below for reference)shows the procedure to disassemble/reassemble mechanism parts.
Carefully read the following explanation before starting actual disassembling/reassembling work. The item numbers(circled numbers)in the following explanation correspond to those appearing under respective columns of the table.

Example

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
[1]	CASSETTE HOUSING ASSY	T	Fig.2-4-3	3(S1),(L1a)-(L1e)	**NOTE 1 a,b,c,d**	ADJUSTMENT
[2]	UPPER BASE ASSY	T	Fig.2-4-4	(S2),(L2a),(L2b)	**NOTE 2**	
[3]	DRUM ASSY	T		(S3a),2(S3b)	**NOTE 3 a,b**	
[4]	REEL DISK ASSY(SUP)	T	Fig.2-4-5	(W4)	**NOTE 4 a**	
[5]	REEL DISK ASSY(TU)	T		(W5a),(W5b),(W5c)	**NOTE 5 a,b**	
[6]	REEL COVER ASSY	T		(W6),(S6a),2(S6b)	**NOTE 6**	ADJUSTMENT

*1 *2 *3 *4 *5 *6 *7

*1 Numbers appearing in this column indicate the order to remove parts. When reassembling, follow these numbers in the reverse order. Circled numbers in this column correspond to those appearing in drawings of this section.
*2 This column shows part names corresponding to numbers in the left column.
*3 The symbol (T or B)appearing in this column shows the side which the objective part is mounted on.
T =the upper side, B =the lower side
*4 Symbols appearing in this column indicate drawing numbers.
*5 This column indicates parts and points such as screws, washers,springs,and others to be removed/fitted for disassembling/reassembling the mechanism. Besides such the parts, this column occasionally indicates working points.

P = Spring
W = Washer
S = Screw
* = Lock (L),soldering (SD),shield,connector (CN),etc.

Example

- Remove (W1)=Washer W1.
- Remove the solder at (SD1)=Point SD1.
- Disconnect A = Connector A.

*6 Numbers in this column represent the numbers of notes in the text.
(For parts that need phase adjustment after reassembling, refer to “MECHANISM ADJUSTMENTS”.)
*7 This column indicates required after-disassembling/-reassembling work such as phase adjustment or mechanism adjustment.

2.1.3 DISASSEMBLY AND ASSEMBLY OF MECHANISM ASSEMBLY

2.1.3.1 General statement

The mechanism should generally be disassembled/assembled in the C.IN mode (ASSEMBLY mode). (Refer to Fig. 2-1-1,2-1-2.) However, when the mechanism is removed from the main body, it is set in the STOP mode. Therefore, after the mechanism is removed from the main body, supply 3 V DC to the electrode on the top of the loading motor to enter the mechanism mode into the C IN mode compulsory.

<Mechanism assembly/Cassette housing assembly>

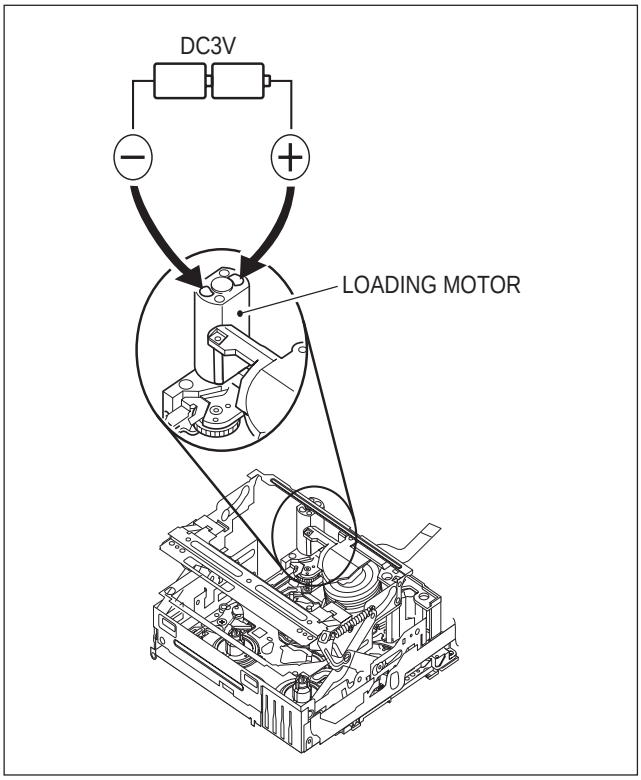


Fig.2-1-1

<Back side of the mechanism assembly>

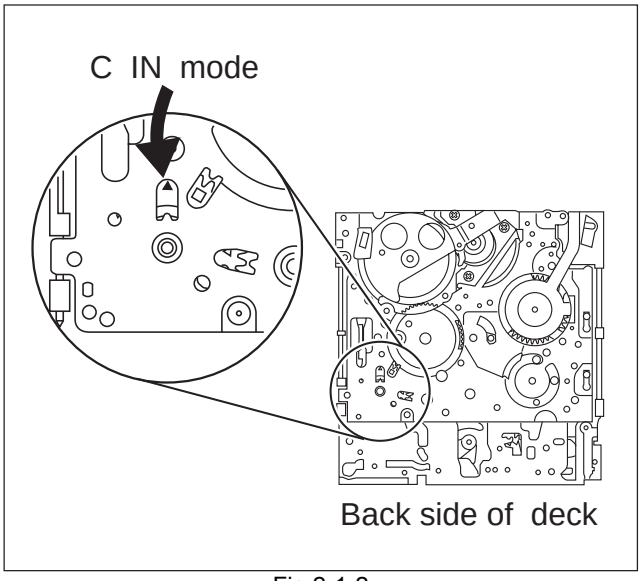


Fig.2-1-2

2.1.3.2 Explanation of mechanism mode

The mechanism mode of this model is classified into five modes as shown in Fig. 2-1-9. Each mechanism mode can be distinguished from others by the relative position of "△", "○", "⬭", "□" marks on the sub cam gear to the inner or outer protrusion on the main deck.

Refer to Fig. 2-1-3 to 2-1-8 below.

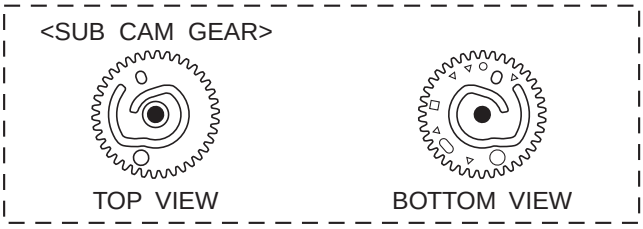


Fig.2-1-3

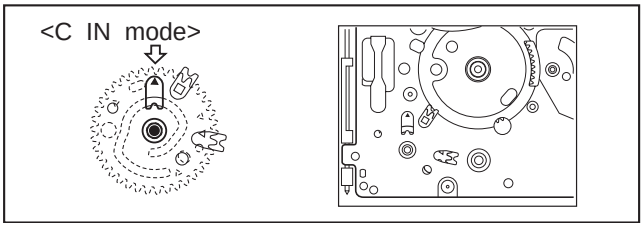


Fig.2-1-4

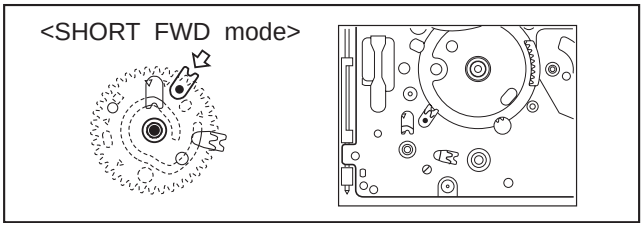


Fig.2-1-5

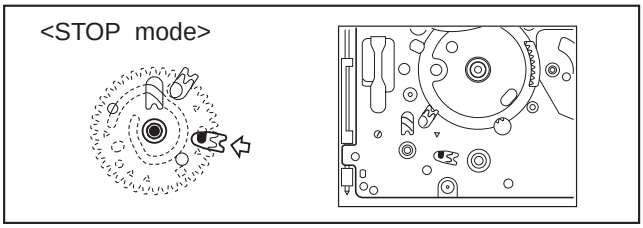


Fig.2-1-6

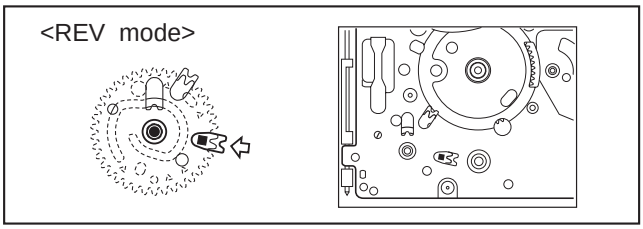


Fig.2-1-7

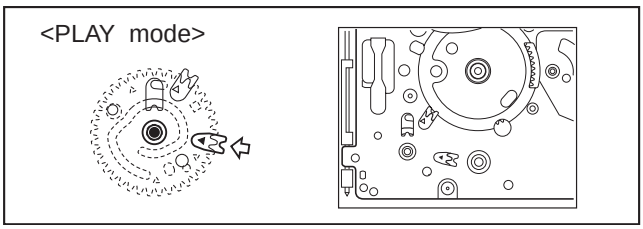


Fig.2-1-8

2.1.3.3 Mechanism timing chart

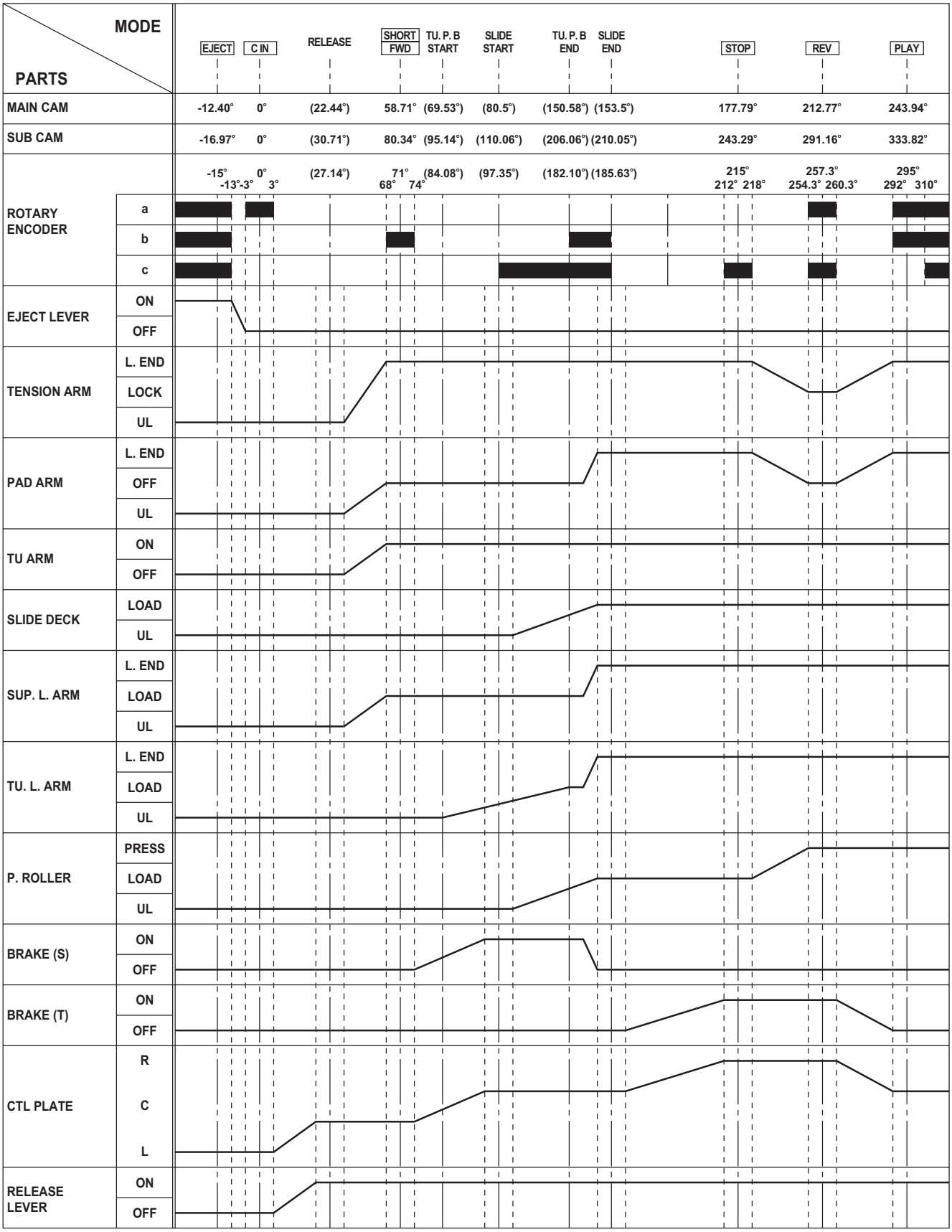


Fig.2-1-9

2.1.4 DISASSEMBLY PROCEDURE TABLE

MARK: # After assembly, perform adjustments.

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
[1]	CASSETTE HOUSING ASSY	T	Fig.2-1-14	3(S1),(L1a)-(L1e)	**NOTE 1 a,b,c,d**	ADJUSTMENT
[2]	UPPER BASE ASSY	T	Fig.2-1-15	(S2),(L2a),(L2b)	**NOTE 2**	
[3]	DRUM ASSY	T		(S3a),2(S3b)	**NOTE 3 a,b**	ADJUSTMENT
[4]	REEL DISK ASSY(SUP)	T	Fig.2-1-16	(W4)	**NOTE 4**	
[5]	REEL DISK ASSY(TU)	T		(W5a),(W5b)	**NOTE 5 a,b**	
[6]	REEL COVER ASSY	T		(W6),2(S6a),(S6b)	**NOTE 6**	
[7]	TENSION ARM ASSY	T	Fig.2-1-17	(L7)	**NOTE 7**	ADJUSTMENT / #
[8]	SLANT POLE ARM ASSY	T		(P8)	**NOTE 8**	ADJUSTMENT
[9]	TU ARM ASSY	T		(L9)	**NOTE 9**	ADJUSTMENT
[10]	SWING ARM ASSY	T		(S10)	**NOTE 10**	ADJUSTMENT
[11]	SLIDE DECK ASSY	T	Fig.2-1-18	2(S11a),(S11b),2(L11a), 2(L11b),(L11c)	**NOTE 11a,b**	ADJUSTMENT / #
[12]	PAD ARM ASSY	T	Fig.2-1-19	(P12),(L12),(W12)	**NOTE 12**	ADJUSTMENT / #
[13]	-	-		-	-	
[14]	TU BRAKE ASSY	T		(P14),(L14),(W14)	**NOTE 14**	ADJUSTMENT
[15]	TENSION CTL LEVER ASSY	T	Fig.2-1-20	(W15)	**NOTE 15**	ADJUSTMENT
[16]	CENTER GEAR	T		-	**NOTE 16**	
[17]	PINCH ROLLER ARM F. ASSY	T		(W17)	**NOTE 17**	ADJUSTMENT
[18]	TENSION CTL PLATE ASSY	T		-	**NOTE 18**	ADJUSTMENT
[19]	BRAKE CTL LEVER ASSY	T		-	**NOTE 19**	ADJUSTMENT
[20]	MOTOR BRACKET ASSY	T	Fig.2-1-21	3(S20),(L20a),2(L20b)	**NOTE 20**	ADJUSTMENT
[21]	GUIDE RAIL ASSY	T		2(W21),(S21),2(L21a),(L21b)	**NOTE 21**	ADJUSTMENT
[22]	SLIDE LEVER 2 ASSY	T		-	**NOTE 22**	ADJUSTMENT / #
[23]	LOADING PLATE ASSY	T		(W23)	**NOTE 23**	ADJUSTMENT
[24]	MODE GEAR	T		-	**NOTE 24**	
[25]	EJECT LEVER	T		(W25)	**NOTE 25**	ADJUSTMENT
[26]	BASE R ASSY	T	Fig.2-1-22	(S26a),(S26b),2(L26)	**NOTE 26**	ADJUSTMENT
[27]	ROTARY ENCODER	T		2(S27)	**NOTE 27**	PHASE ADJUSTMENT
[28]	GEAR COVER ASSY	T		(S28a),2(S28b)	-	
[29]	MAIN CAM ASSY	T		-	**NOTE 29**	PHASE ADJUSTMENT
[30]	SLIDE ARM ASSY	T	Fig.2-1-23	-	**NOTE 30**	ADJUSTMENT
[31]	CONNECT GEAR 2	T		-	**NOTE 31**	
[32]	SUB CAM ASSY	T		(S32)	**NOTE 32**	PHASE ADJUSTMENT
[33]	CONTROL ARM ASSY	T		-	**NOTE 33**	ADJUSTMENT
[34]	REEL GEAR 1	T		-	**NOTE 34**	
[35] / [36]	DRUM BASE ASSY/ CAPSTAN MOTOR	T	Fig.2-1-24	3(S35)	**NOTE 35a,b**	ADJUSTMENT
[36]	CAPSTAN MOTOR	T		(S36)	**NOTE 36**	ADJUSTMENT
[37]	MAIN DECK ASSY	T		-	-	

Fig.2-1-10

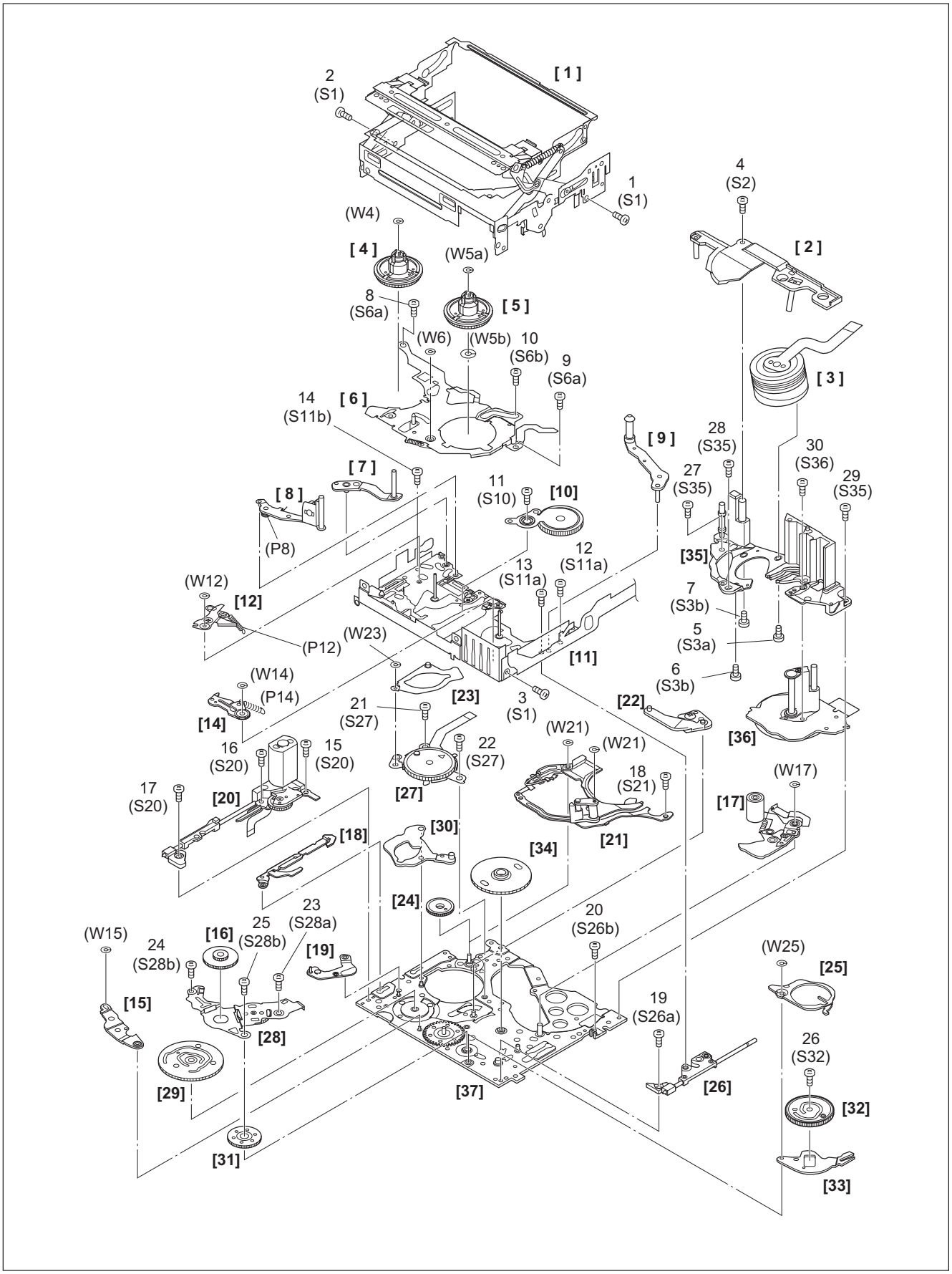

2
(S1)
[1]
1
(S1)
4
(S2)
(W4)
[4]
(W5a)
[2]
8
(S6a)
[5]
(W6)
(W5b)
10
(S6b)
9
(S6a)
[3]
14
(S11b)
[6]
[9]
28
(S35)
30
(S36)
[7]
27
(S35)
29
(S35)
[8]
11
(S10)
[10]
(P8)
12
(S11a)
[35]
(W12)
13
(S11a)
7
(S3b)
[12]
5
(S3a)
(P12)
(W23)
[11]
6
(S3b)
(W14)
[23]
3
(S1)
[22]
(P14)
21
(S27)
[14]
(W21)
[36]
16
(S20)
15
(S20)
22
(S27)
(W21)
(W17)
17
(S20)
[20]
[27]
18
(S21)
[17]
[18]
[30]
[34]
[21]
[24]
20
(S26b)
(W15)
23
(S28a)
25
(S28b)
[16]
(W25)
24
(S28b)
[19]
[25]
[15]
19
(S26a)
[28]
26
(S32)
[29]
[37]
[26]
[32]
[31]
[33]

Fig.2-1-11

< TOP VIEW >

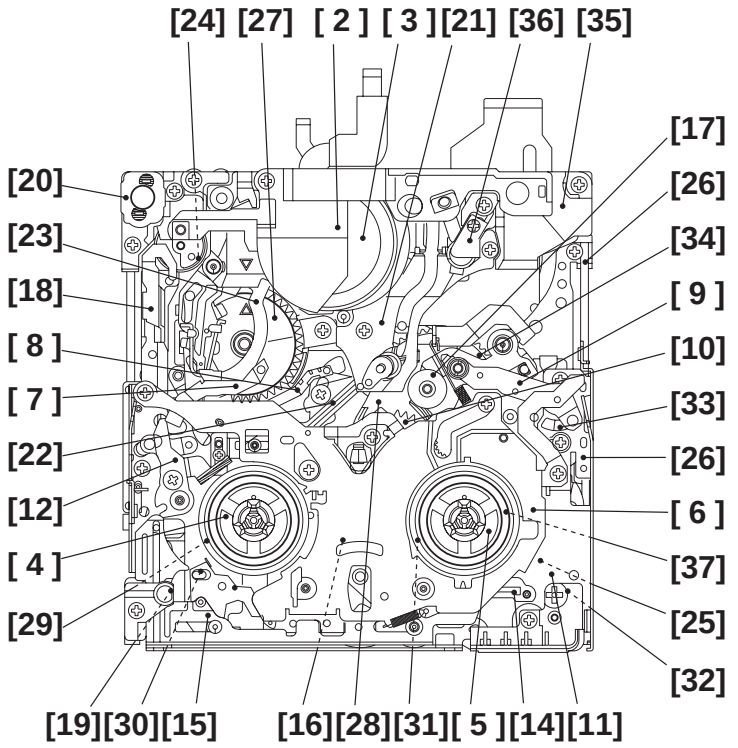


Fig.2-1-12

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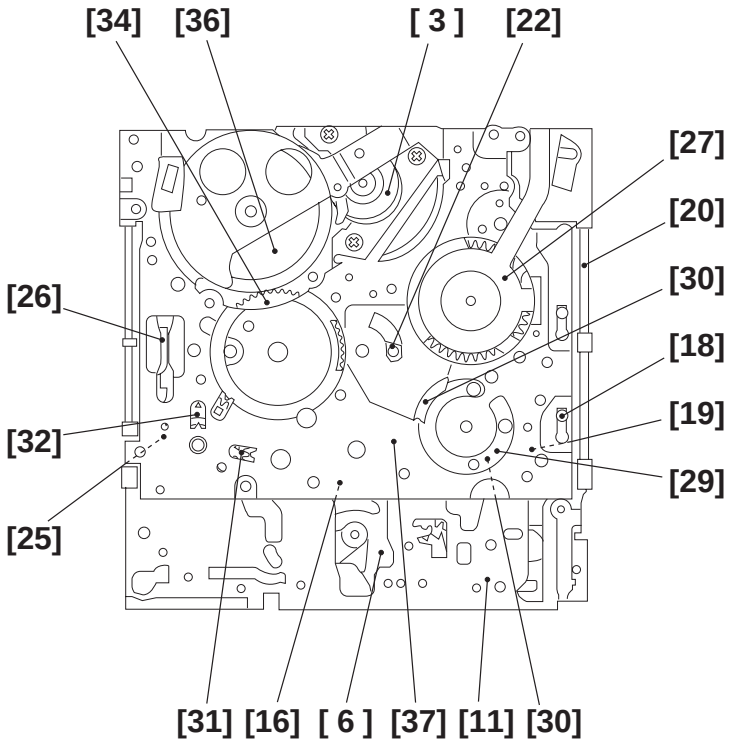


Fig.2-1-13

2.1.5 DISASSEMBLY/ASSEMBLY

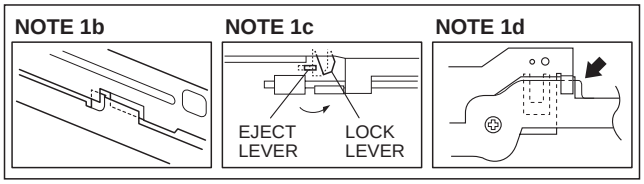
2.1.5.1 [1] CASSETTE HOUSING ASSY

NOTE 1a:
Be careful not to damage any of the parts during work.

NOTE 1b:
Special care is required in mounting.

NOTE 1c:
When mounting, the CASSETTE HOUSING ASSY should be attached in the Eject status. Pay heed to the positions of the LOCK LEVER and EJECT LEVER during mounting.

NOTE 1d:
When mounting, be sure to locate the FPC in the gap.



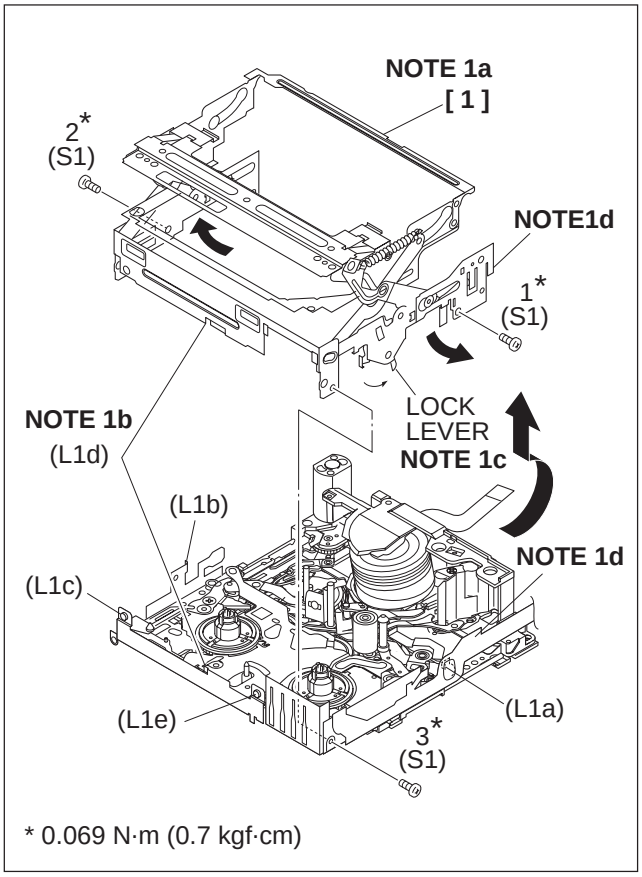


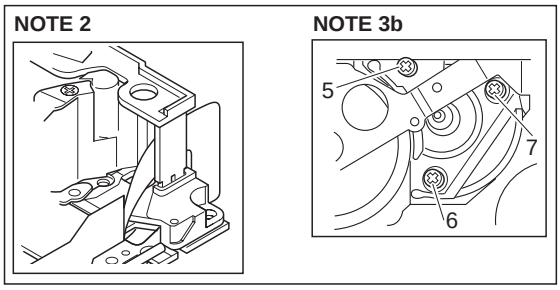
Fig.2-1-14

2.1.5.2 [2] UPPER BASE ASSY
[3] DRUM ASSY

NOTE 2:
When mounting, be sure to insert the FPC reinforcing sheet.

NOTE 3a:
Be mindful of scratches or damage during work.

NOTE 3b:
Be careful not to attach screws incorrectly.



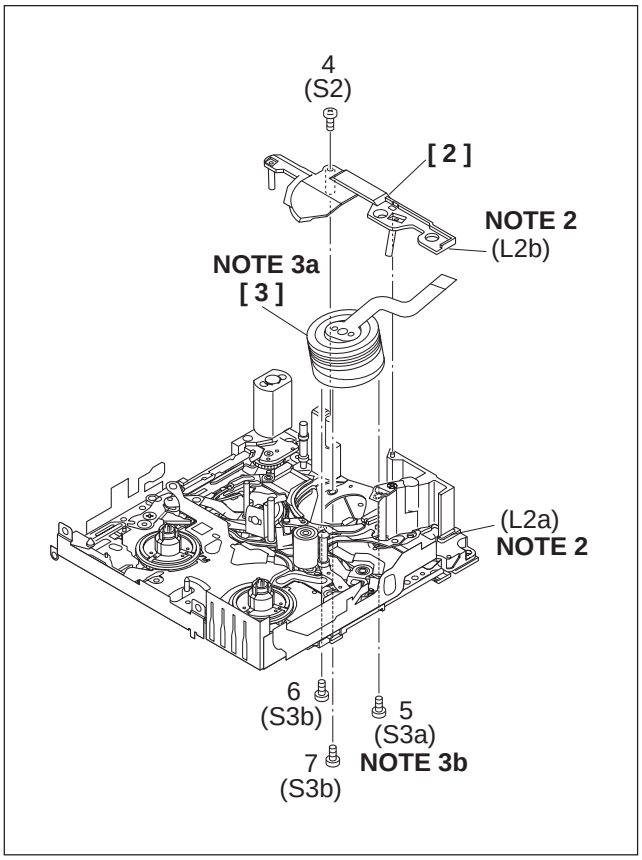


Fig.2-1-15

2.1.5.3 [4] REEL DISK ASSY(SUP)
[5] REEL DISK ASSY(TU)
[6] REEL COVER ASSY

NOTE 4:

Be careful not to attach the REEL DISK wrongly. The Supply side can be identified by the white color at the center.

NOTE 5a:

Be careful not to attach the REEL DISK wrongly. The Take-up side can be identified by the black color at the center.

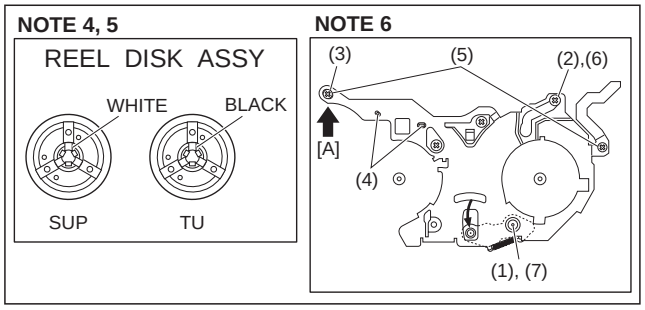
NOTE 5b

The washer is inserted under the REEL DISK.
Be carefull not to lose the washer.
Two washers are inserted under the REEL DISK in some products manufactured earlier, but one washer is inserted in the products manufactured recently and in the future.
See the parts list, and use the parts written in the parts list.

NOTE 6:

Perform the following steps for mounting.

(1) Align the hole with the pin.
(2) Attach the **[17]** PINCH ROLLER ARM FINAL ASSY by aligning the positions.
(3) Attach the SLIDE DECK ASSY (POINT[A]) by aligning the positions.
(4) Check that the parts below them are located in the correct positions.
(5) Tighten the 2 screws.
(6) Tighten the screw.
(7) Attach the 1 SLIT WASHER parts.



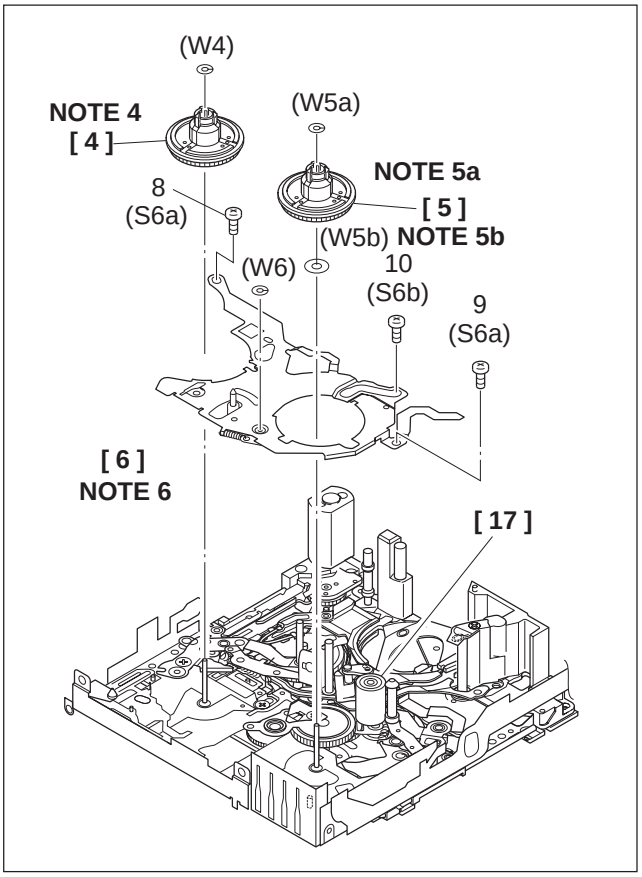


Fig.2-1-16

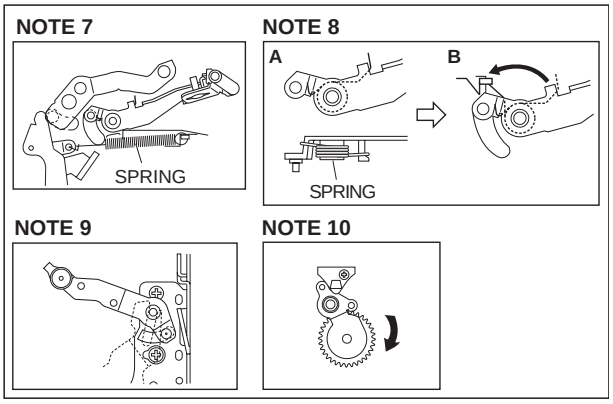
2.1.5.4 [7] TENSION ARM ASSY
[8] SLANT POLE ARM ASSY
[9] TU ARM ASSY
[10] SWING ARM ASSY

NOTE 7:
When detaching, remove the spring of the **[12]** PAD ARM ASSY in advance.
Pay attention to the attachment position.

NOTE 8:
When mounting the SLANT POLE ARM ASSY, hook the spring onto the lug as in diagram A, and fit the combination onto the SLIDE DECK ASSY. After fitting, hook the spring onto the lug of the SLIDE DECK ASSY as in diagram B.
Be careful not to lose the spring.

NOTE 9:
Pay attention to the attachment position.

NOTE 10:
When detaching, remove the screw then remove the SWING ARM ASSY by pulling it up and turning it.



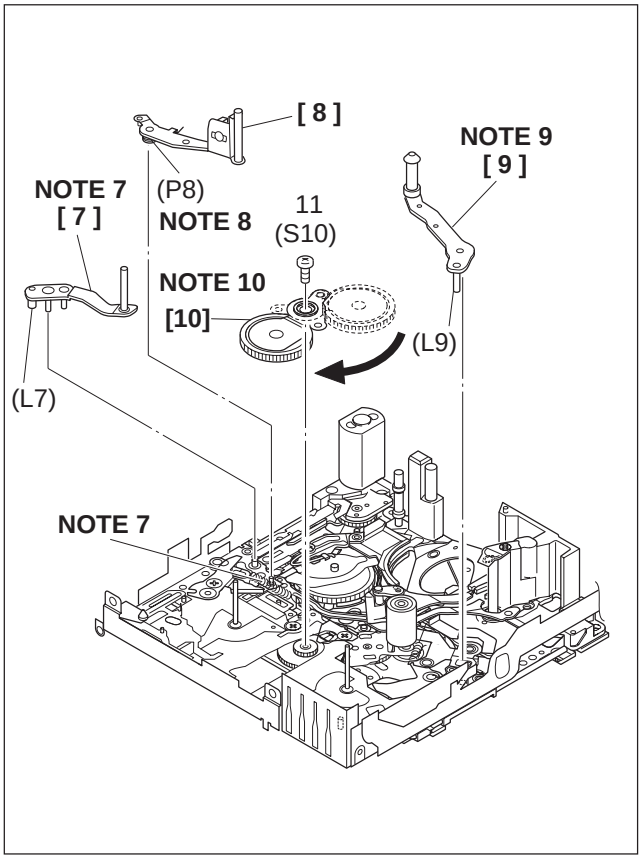


Fig.2-1-17

2.1.5.5 [11] SLIDE DECK ASSY

NOTE 11a:

Each of the parts on the SLIDE DECK ASSY can be replaced separately.

When detaching the assembly, if there is no need to replace any of its parts, remove the SLIDE DECK ASSY as it is.

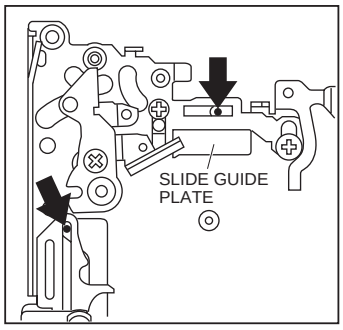
NOTE 11b:

When mounting, pay attention to the positions of the **[22]** SLIDE LEVER 2 ASSY studs and the **[19]** BRAKE CTL LEVER ASSY.

When mounting, position the CONTROL PLATE on the left side.

Pay attention to the position of the SLIDE GUIDE PLATE during mounting.

NOTE 11b



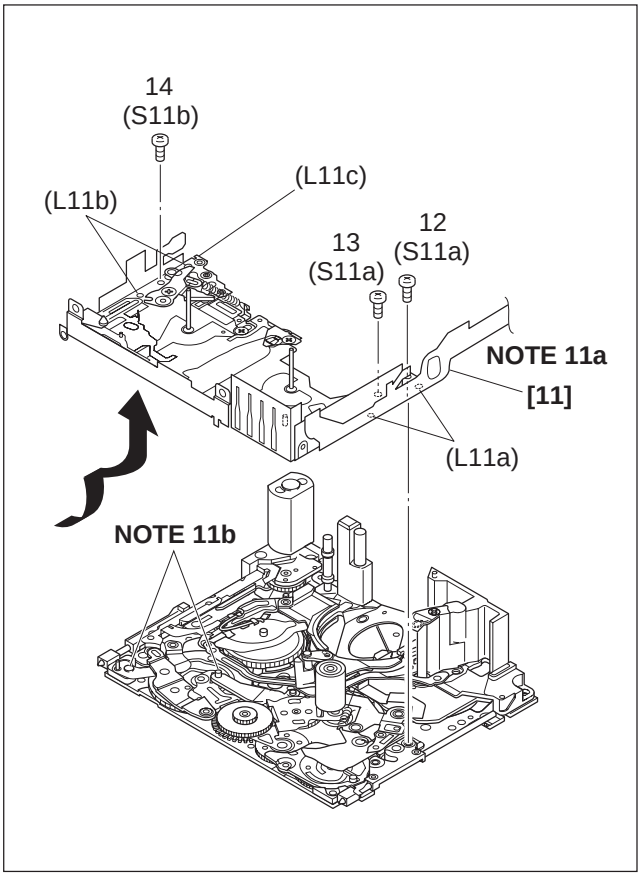


Fig.2-1-18

2.1.5.6 [12] PAD ARM ASSY
[13] -
[14] TU BRAKE ASSY

NOTE 12:

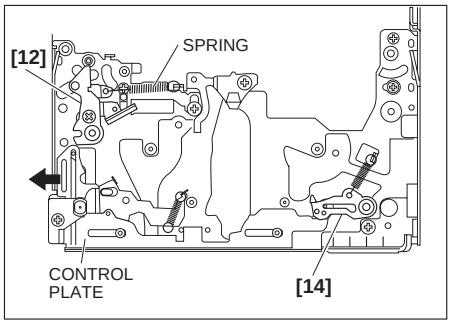
The spring may have already been disengaged when the **[8]** SLANT POLE ARM ASSY was removed.

NOTES 14:

When mounting, pay attention to the correct positioning.

Mount the CONTROL PLATE by moving it fully toward the left side.

NOTE 12,14



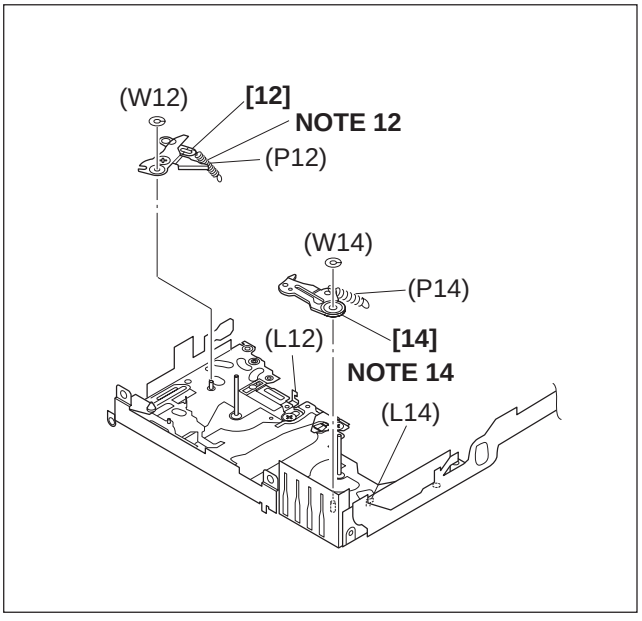


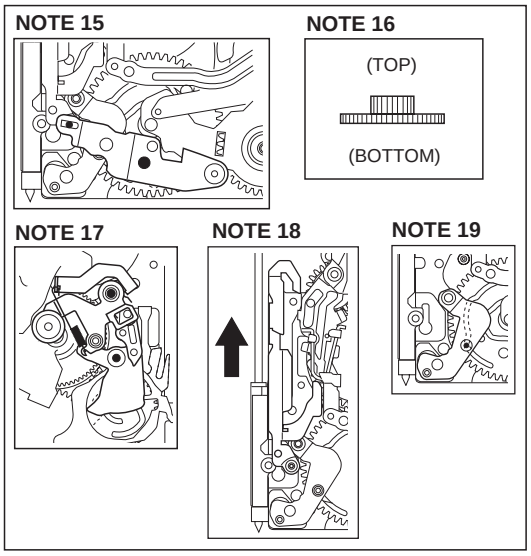
Fig.2-1-19

2.1.5.7 [15] TENSION CTL LEVER ASSY
[16] CENTER GEAR
[17] PINCH ROLLER ARM FINAL ASSY
[18] TENSION CTL PLATE ASSY
[19] BRAKE CTL LEVER ASSY

NOTES 15/16:
When mounting, pay attention to the correct positioning.

NOTE 17:
Take care against grease attachment during work.

NOTES 18/19:
When mounting, pay attention to the correct positioning.



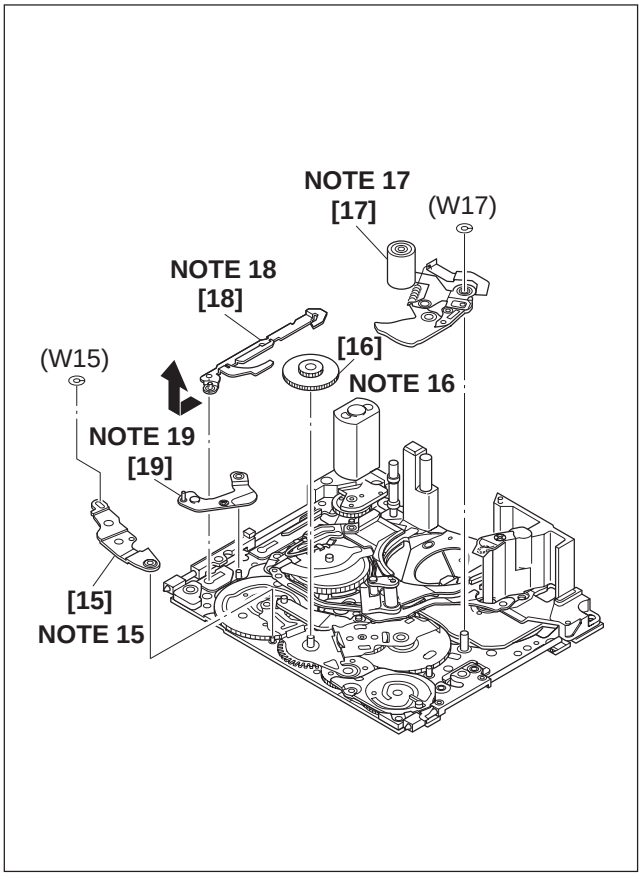


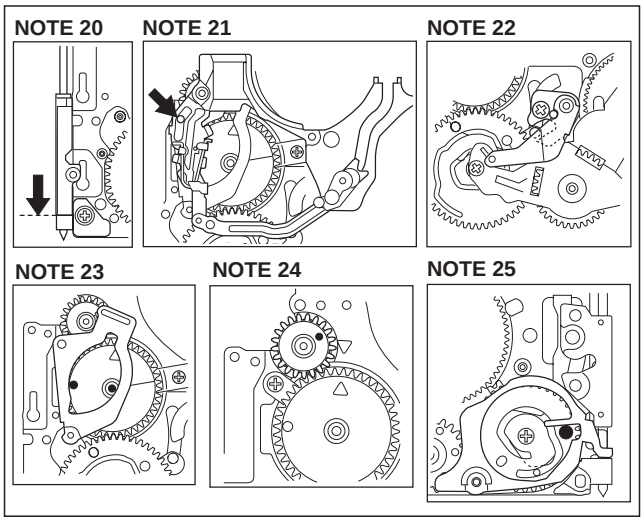
Fig.2-1-20

2.1.5.8 [20] MOTOR BRACKET ASSY
[21] GUIDE RAIL ASSY
[22] SLIDE LEVER 2 ASSY
[23] LOADING PLATE ASSY
[24] MODE GEAR
[25] EJECT LEVER

NOTE 20:
When mounting, pay attention to the positioning of the sliding parts.

NOTE 21:
When mounting, take care that no part is allowed to float or rattle.

NOTES 22/23/24/25:
When mounting, pay attention to the correct positioning.



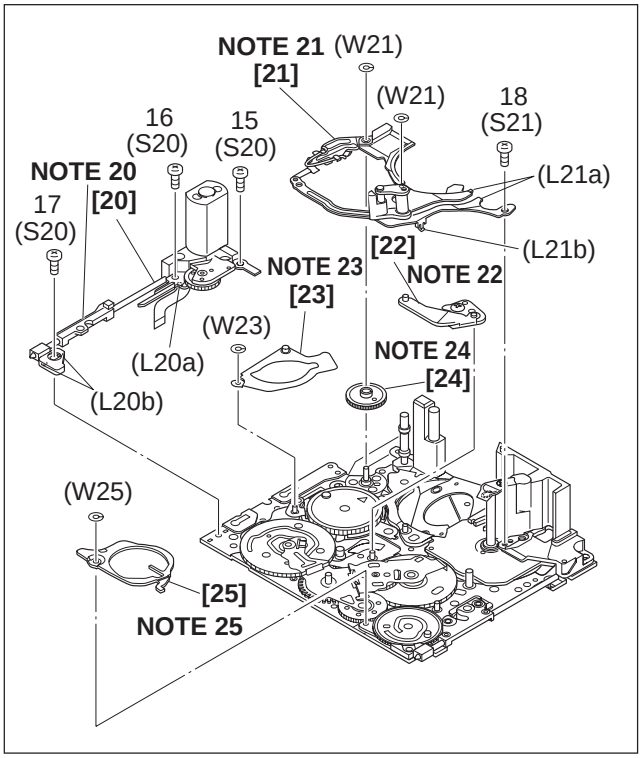


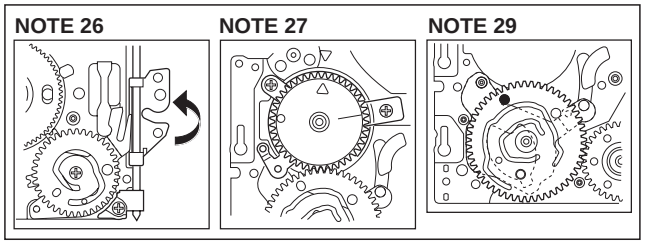
Fig.2-1-21

2.1.5.9 [26] BASE R ASSY
[27] ROTARY ENCODER
[28] GEAR COVER ASSY
[29] MAIN CAM ASSY

NOTE 26:
When mounting, fold the sliding part to the inner side.

NOTE 27:
When mounting, pay attention to the correct positioning and the FPC layout.

NOTE 29:
When mounting, pay attention to the correct positioning.



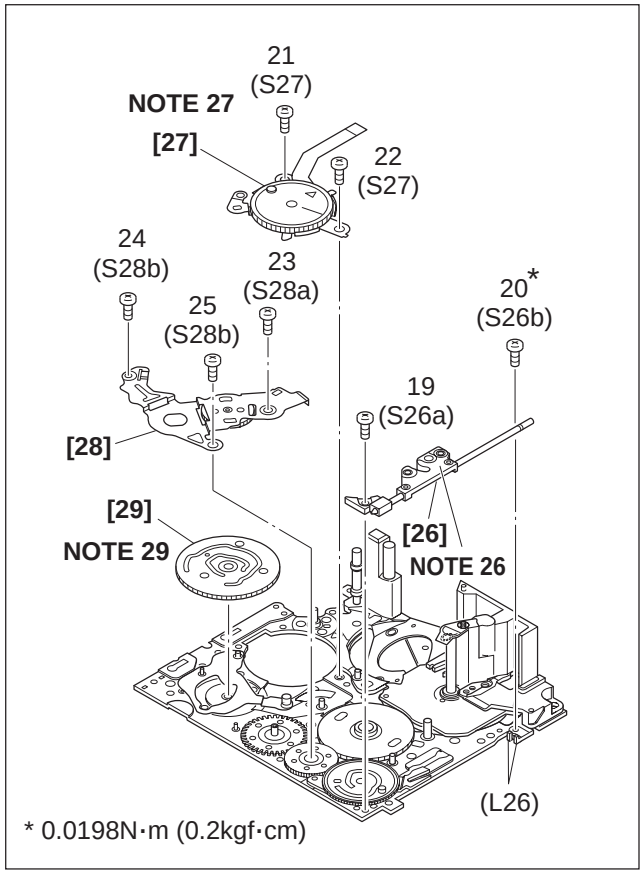


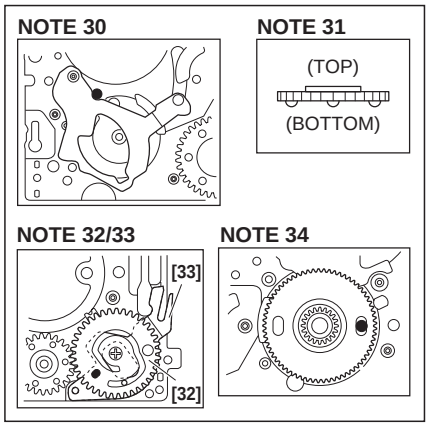
Fig.2-1-22

2.1.5.10 [30] SLIDE ARM ASSY
[31] CONNECT GEAR 2
[32] SUB CAM ASSY
[33] CONTROL ARM ASSY
[34] REEL GEAR 1

NOTE 30:
When mounting, pay attention to the correct positioning.

NOTE 31:
When mounting, pay attention to the position of the front and back.

NOTES 32/33/34:
When mounting, pay attention to the correct positioning.



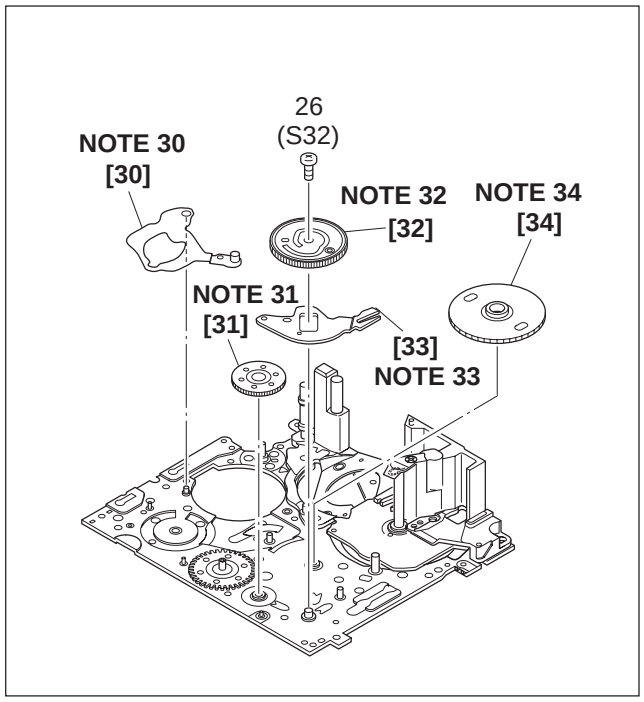


Fig.2-1-23

2.1.5.11 [35] DRUM BASE ASSY
[36] CAPSTAN MOTOR
[37] MAIN DECK ASSY

NOTES 35a/36:

Since [36]CAPSTAN MOTOR is attached to [35]DRUM BASE ASSY, remove [36]CAPSTAN MOTOR together with [35]DRUM BASE ASSY when removing [36]CAPSTAN MOTOR.

[36]CAPSTAN MOTOR should not be separated from [35]DRUM BASE ASSY except when replacing them.

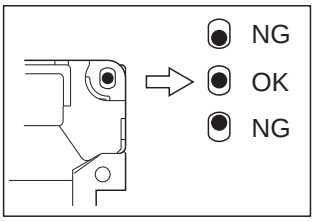
NOTE 35b:

It is very important to attach [35]DRUM BASE ASSY to the proper position.

Especially, improper engagement of [36]CAPSTAN MOTOR with [34]REEL GEAR 1 causes operational defection or abnormal sound. Therefore, confirm the attachment position before disassembly procedure.

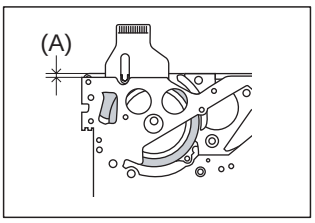
See the following figure as for the proper attachment position.

NOTE 35b



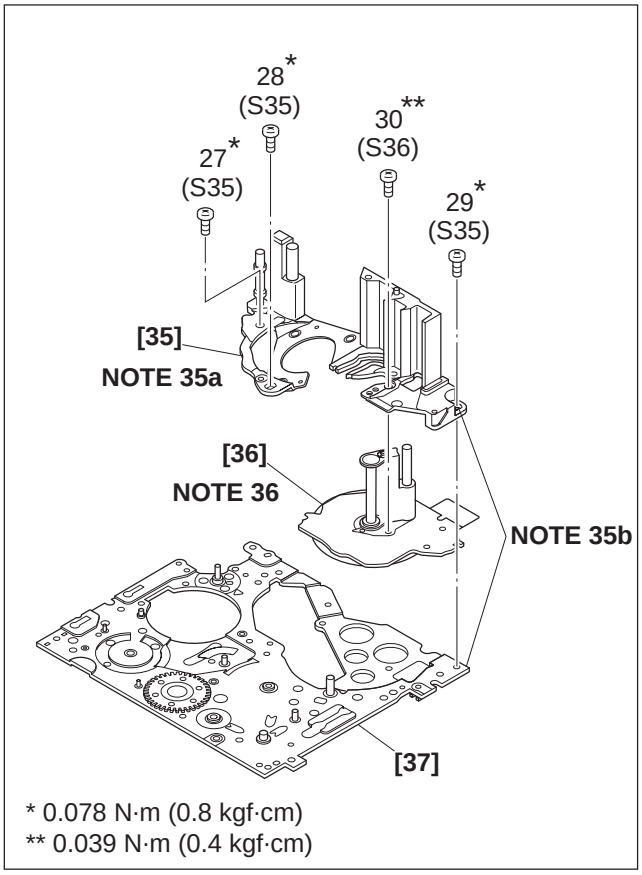
When [35]DRUM BASE ASSY is properly attached, the screw hole tends to be located at the center of the oval.

When the screw hole is located far from the center of the oval, operational defection or abnormal sound may occur.



Before removing [35]DRUM BASE ASSY, confirm the position of [35]DRUM BASE ASSY by seeing the length (A), as shown in the left figure.

When reattaching [35]DRUM BASE ASSY, confirm the position to reattach [35]DRUM BASE ASSY by seeing the length (A). Be sure to reattach [35]DRUM BASE ASSY to the same position as it has been before the removing procedure.



* 0.078 N·m (0.8 kgf·cm)
** 0.039 N·m (0.4 kgf·cm)

Fig.2-1-24

2.1.6 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

[24]MODE GEAR

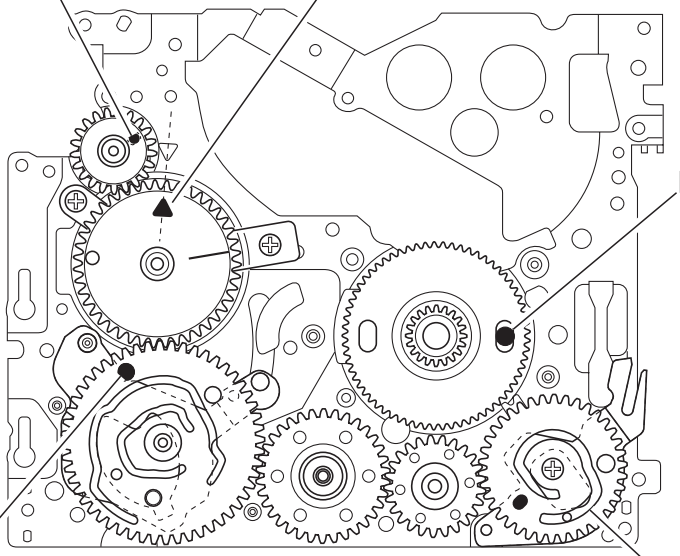
Align the MODE GEAR with the Main Deck Assembly hole.

Note:
The MODE GEAR may be displaced during the mechanism operation, however it can be checked from the rear and realigned during manual assembly.

[27]ROTARY ENCODER

Mount the ROTARY ENCODER by aligning its mark (△) and the mark (▽) of the Main Deck Assembly.

Note:
Be careful when handling the FPC during mounting.



[34]REEL GEAR 1

Align the REEL GEAR 1 with the Main Deck Assembly hole.

Note:
The REEL GEAR 1 may be displaced during mechanism operation, however this can be checked from the rear and realigned during manual assembly.

[29]MAIN CAM ASSY/[30]SLIDE ARM ASSY

When mounting the SLIDE ARM ASSY align it with the Main Deck Assembly and MAIN CAM ASSY holes.

Note:
During the mounting procedure, make sure that the[32] SUB CAM ASSY is in the correct mounting position.

[32]SUB CAM ASSY/[33] CONTROL ARM ASSY

Mount the SUB CAM ASSY hole to align with the CONTROL ARM ASSY and Main Deck Assembly holes and then tighten them all together with a screw.

Note:
When mounting it, make sure that the[29]MAIN CAM ASSY is in the correct mounting position.

Fig.2-1-25

2.1.7 MECHANISM ADJUSTMENTS

2.1.7.1 Adjustment of the slide guide plate

Use Fig. 2-1-26 as the reference unless otherwise specified.

(1) Set the PLAY mode. See Fig. 2-1-8.
(2) Loosen the screws (**A**, **B**).
(3) With the Main Deck and Slide Deck Assemblies pushed into the unit, tighten the screws (**A**, **B**) while applying pressure to the stud (shaft) on the Slide Guide plate.
The pressure applied should be enough to enable utilization of the rebounding force of the springs.
The tightening torque should be 0.069 N•m (0.7 kgf•cm).
(4) Check the operation.
Repeat unloading and loading several times and make sure that these operations can be performed smoothly without producing rattles.

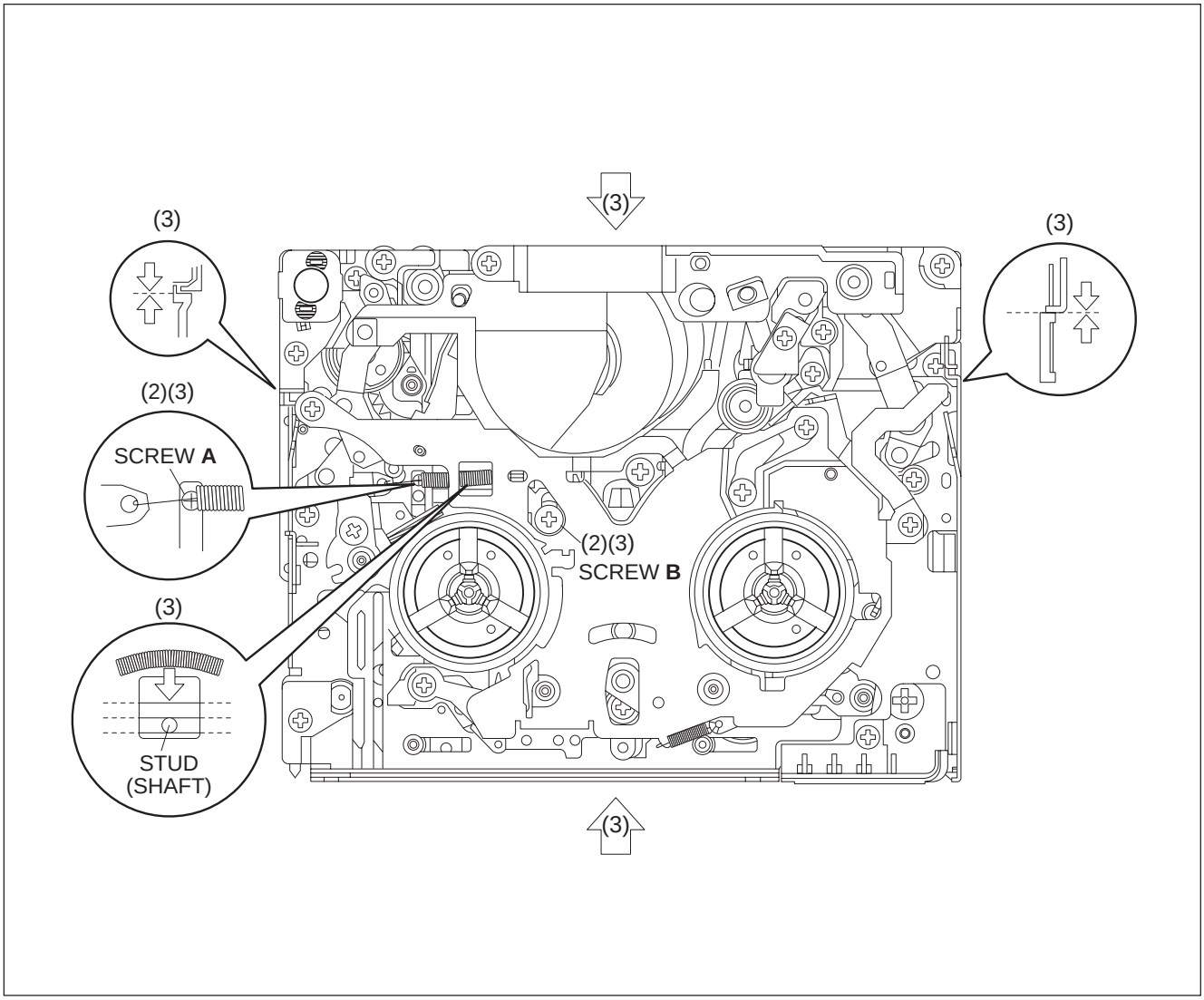


Fig.2-1-26

2.1.7.2 Adjustment of the Tension Arm and Pad Arm Assemblies

Use Fig. 2-1-27 as the reference unless otherwise specified.

(1) Set the PLAY mode.
See Fig. 2-1-8.
(2) Loosen the screw **A**.
(3) With the take-up side at the bottom, align the extreme end of the Tension Arm Assembly with the crossed grooves on the screw **B** that retains the Loading Motor Assembly and then tighten the screw **A**.
The tightening torque should be 0.069 N•m (0.7 kgf•cm).
(4) Check the operation.
Repeat unloading and loading several times and make sure that the Tension Arm Assembly is located within the normal range.

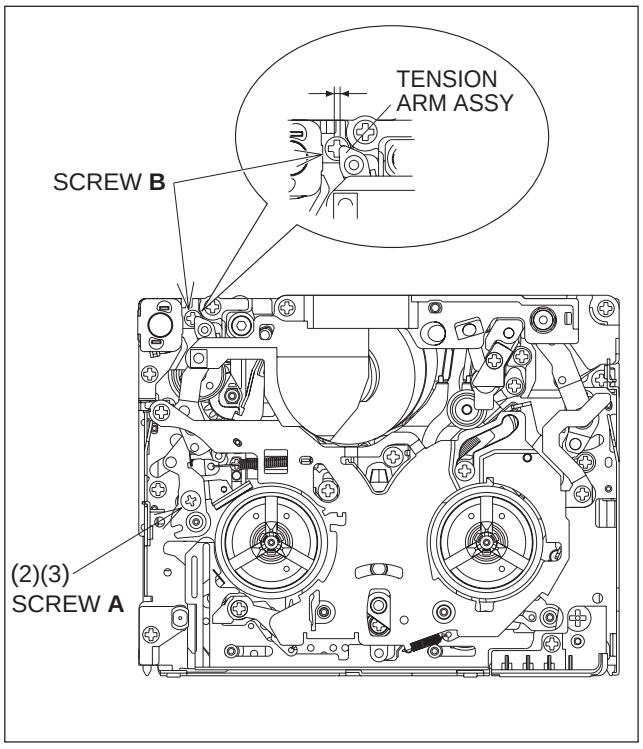


Fig.2-1-27

2.1.7.3 Adjustment of the Slide Lever 2

Use Fig. 2-1-28 as the reference unless otherwise specified.

(1) Set the C IN mode.
See Fig. 2-1-4.
(2) Loosen the screw **A**.
(3) Set the Main Deck and Slide Deck Assemblies apart so that they do not rattle, then tighten the screw **A** by screwing it fully toward the Drum Assembly.
The tightening torque should be 0.069 N•m (0.7 kgf•cm).
(4) Check the operation.
Repeat unloading and loading several times and make sure that these operations can be performed smoothly without producing rattles.

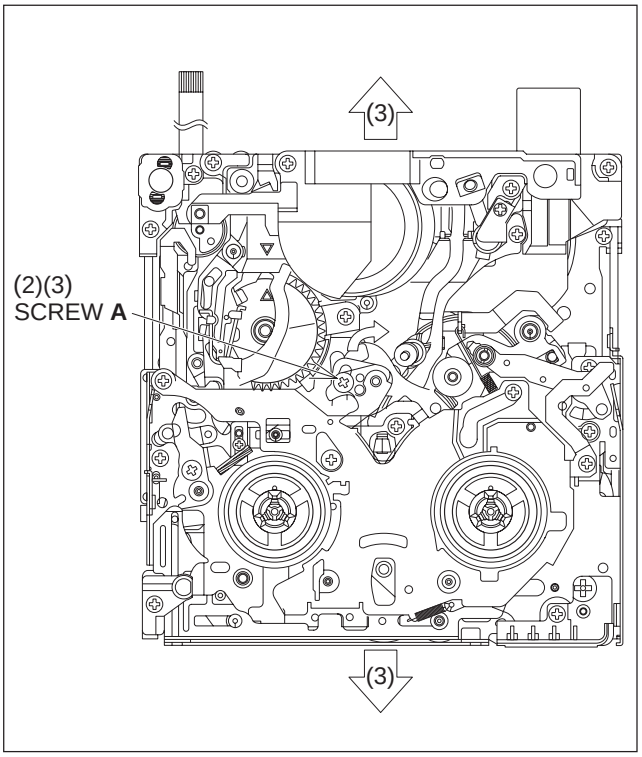


Fig.2-1-28

2.1.8 SERVICE NOTE

Use the following chart to manage mechanism parts that are removed for disassembling the mechanism.

Fig.2-1-14

[1] CASSETTE HOUSING ASSY

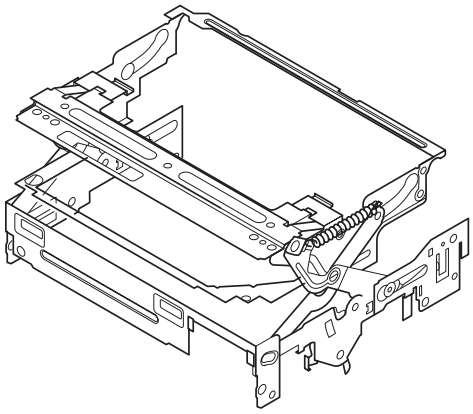


Fig.2-1-15

[2] UPPER BASE ASSY

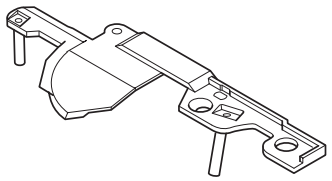


Fig.2-1-15

[3] DRUM ASSY

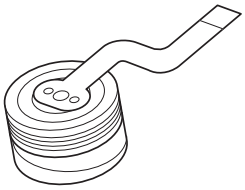
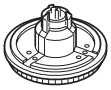
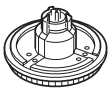


Fig.2-1-16

[4] REEL DISK ASSY(SUP)



[5] REEL DISK ASSY(TU)



[6] REEL COVER ASSY

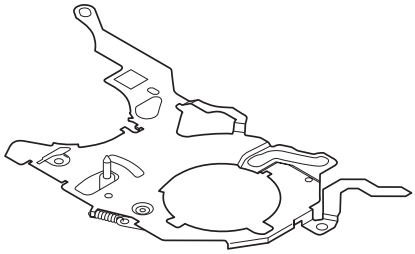
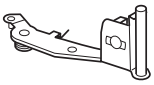


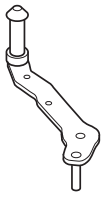
Fig.2-1-17

[7] TENSION ARM ASSY

[8] SLANT POLE ARM ASSY



[9] TU ARM ASSY



[10] SWING ARM ASSY

Fig.2-1-18

[11] SLIDE DECK ASSY

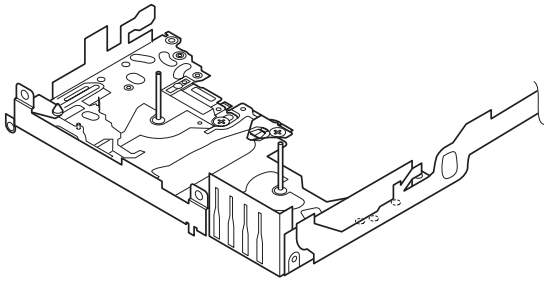


Fig.2-1-19

[12] PAD ARM ASSY

[13]

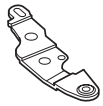
—

[14] TU BRAKE ASSY

Fig.2-1-29

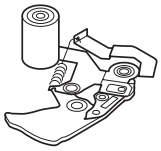
Fig.2-1-20

[15] TENSION CTL LEVER ASSY

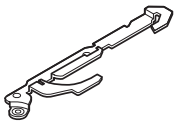


[16] CENTER GEAR

[17] PINCH ROLLER ARM F. ASSY



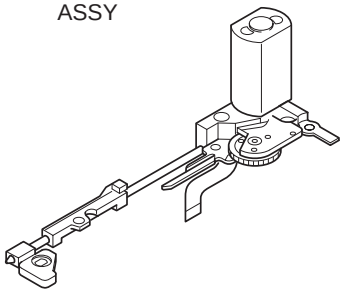
[18] TENSION CTL PLATE ASSY



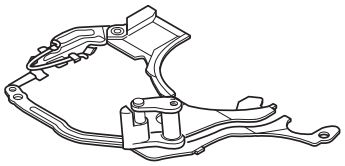
[19] BRAKE CTL LEVER ASSY

Fig.2-1-21

[20] MOTOR BRACKET ASSY



[21] GUIDE RAIL ASSY



[22] SLIDE LEVER 2 ASSY

[23] LOADING PLATE ASSY

[24] MODE GEAR

[25] EJECT LEVER

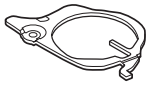
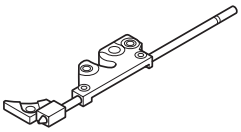
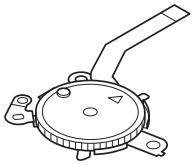


Fig.2-1-22

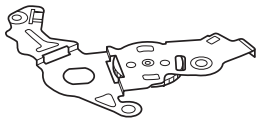
[26] BASE R ASSY



[27] ROTARY ENCODER



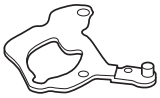
[28] GEAR COVER ASSY



[29] MAIN CAM ASSY

Fig.2-1-23

[30] SLIDE ARM ASSY



[31] CONNECT GEAR 2

[32] SUB CAM ASSY

[33] CONTROL ARM ASSY

[34] REEL GEAR 1

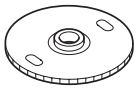
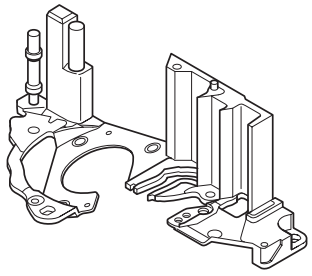
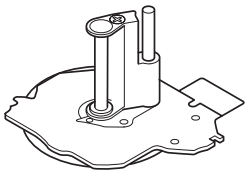


Fig.2-1-24

[35] DRUM BASE ASSY



[36] CAPSTAN MOTOR



[37] MAIN DECK ASSY

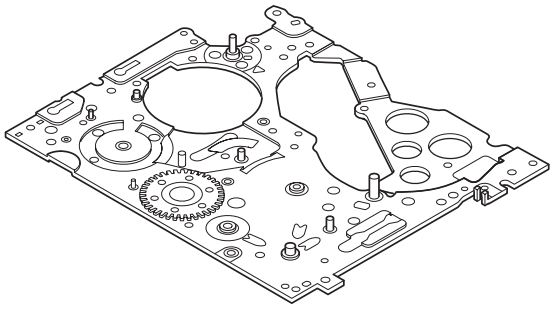


Fig.2-1-30

2.1.9 SERVICE NOTE

Use the following chart to manage screws.

Symbol No.	[1]			[2]	[3]			[6]			[10]	[11]			[20]			[21]	[22]	
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Place to stick screw																				
Reference drawing (Fig. No.2-1-**)	14				15				16		17		18			21			22	
Screw tightening torque	Ⅰ				Ⅱ															Ⅲ

Symbol No.	[27]			[28]			[32]	[35]			[36]
Removing order of screw	21	22	23	24	25	26	27	28	29	30	
Place to stick screw											
Reference drawing (Fig. No.2-1-**)	22					23	24				
Screw tightening torque	Ⅱ						Ⅳ			Ⅴ	

<NOTE>

·Pay careful attention to tightening torque for each screw.

Ⅰ : 0.069N·m(0.7kgf·cm)　　Ⅱ : 0.055N·m(0.56kgf·cm)　　Ⅲ : 0.0198N·m(0.2kgf·cm)

Ⅳ : 0.078N·m(0.8kgf·cm)　　Ⅴ : 0.039N·m(0.4kgf·cm)

Fig.2-1-31

2.1.10 REMARKS

2.1.10.1 Cleaning

(1) For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

NOTE:
Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

(2) For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.

(3) After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.1.10.2 Applying oil and grease

(1) Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.

(2) For parts and points to apply oil and grease, refer to the exploded view of the 3.1 DVC MECHANISM ASSEMBLY. Fig.2-1-32 specifies oil and grease to be used.

(3) When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

specifies oil and grease to be used

Fig.2-1-32

2.2 VHS-C MECHANISM

2.2.1 Precautions

(1) When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.216 N•m (2.2 kgf•cm). Torque setting value of torque driver is limited. At the values over the maximum torque setting value, fasten a screw manually not to damage the screw thread.
(2) Be sure to disconnect the set from the power supply before fastening and soldering parts.
(3) When disconnecting/connecting wires, be careful not to get them and their connectors damaged.
(4) When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

Example

STEP/LOC. No.	PART NAME		FIG.	REMOVAL POINT	INSTALLATION ADJUSTMENT CONDITION NOTE
[1]	ROLLER BASE ASSEMBLY	T	M1	(S1)	–
[2]	TENSION ARM ASSEMBLY	T	M1	(P1), (W1a)	–
[3]	REEL DISC (SUP)	T	M1	(W1a), (W1b)	–
↑ *1	↑ *2	↑ *3	↑ *4	↑ *5	↑ *6

2.2.2 How to read the disassembly and assembly

*1 Order of steps in Procedure
When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.
*2 Part to Name be removed or installed.
*3 Location of part.

T = The Upper side
B = The Lower side

*4 Fig. No. showing Procedure or Part Location.
M = Mechanism
*5 Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P = Spring
W = Washer
S = Screw
* = Unhook, unlock, release, unplug or unsolder.

Example

- Remove (W1)=Washer W1.
- Remove the solder at (SD1)=Point SD1.
- Disconnect A = Connector A.

*6 Adjustment information for installation.
(+) = Refer to Exploded Views for Lubrication information.

2.2.3 DISASSEMBLY/ASSEMBLY PROCEDRURE TABLE

This procedure starts with the condition that the cabinet parts and deck parts. Also, all the following procedures for adjustment and parts replacement should be performed in STOP mode. When reassembling, perform the step(s) in the reverse order.

STEP/LOC. No.	PART NAME		FIG.	REMOVAL POINT	INSTALLATION ADJUSTMENT CONDITION NOTE
[1]	ROLLER BASE ASSY	T	M1	(1)	–
[2]	TENSION ARM ASSY	T	M1	(P1), (W1a)	–
[3]	REEL DISC	T	M1	(W1a), (W1b)	–
[4]	SLANT ARM ASSY	T	M1	(W1a)	–
[5]	CANCEL LEVER ASSY	T	M2	(W2)	–
[6]	EJECT LEVER ASSY	T	M2	(W2)	–
[7]	CASSETTE GUIDE (LEFT)	T	M2	(2)	–
[8]	SUPPLY CLUTCH ASSY	T	M2	(W2)	–
[9]	WHEEL GEAR	T	M2	(W2)	See, Adjustment procedure for Section 2.2.5
[10]	ROTARY ENCODER	B	M3	4(S3a)	The function of this part varies according to the ASSY (VHS/SVHS) which this part is rporated in. (Refer to fig. 2-2-6)
[11]	TIMING BELT	B	M3	–	–
[12]	CENTER PULLEY UNIT	T/B	M3	2(S3a)	–
[13]	CASSETTE GUIDE (R) ASSY	T	M3	(S3b), (P3)	(Only use SVHS model)
[14]	TAKE UP GEAR	T	M3	(W3a)	–
[15]	BRAKE SUB GEAR	T	M3	(W3a)	–
[16]	PINCH ROLLER ARM ASSY	T	M3	(W3b)	–
[17]	TAKE UP GUIDE ARM ASSY	T	M3	(W3a)	–
[18]	LINK ARM ASSY	T	M4	(W4)	–
[19]	LED GUIDE	T	M4	(S4a)	–
[20]	A/C HEAD UNIT	T	M4	2(S4b)	–
[21]	SLANT POLE BASE ASSY	T	M5	(S5a)	–
[22]	CAPSTAN MOTOR	T	M5	3(S5a)	–
[23]	MOTOR BASE	T	M5	2(S5b), (S5c)	–
[24]	BRUSH	B	M6	(S6a)	–
[25]	DRUM FINAL ASSY	T/B	M6	2(S6b), 2(S6c) *CATCHER	–
[26]	GUIDE RAIL	T	M6	7(S6d), 8(S6d)	(Refer to part list.)
[27]	POLE BASE (S)ASSY	T	M6	–	–
[28]	POLE BASE (T)ASSY	T	M6	–	–
[29]	COVER PLATE	T	M7	–	–
[30]	DRIVE LEVER ASSY	T	M7	–	–
[31]	MOTOR BRACKET ASSY	T	M7	3(S7)	–
[32]	CONTROL CAM	T	M8	(W8a)	See, Adjustment procedure for Section 2.2.5
[33]	LINK LEVER	T	M8	_	See, Adjustment procedure for Section 2.2.5
[34]	MIDDLE GEAR	T	M8	–	–
[35]	LOADING GEAR(T) ASSY	T	M8	(W8b)	See, Adjustment procedure for Section 2.2.5
[36]	LOADING GEAR(S) ASSY	T	M8	(W8b)	–
[37]	LOADING RING ASSY	T	M8	4(S8)	See, Adjustment procedure for Section 2.2.5

Fig.2-2-1

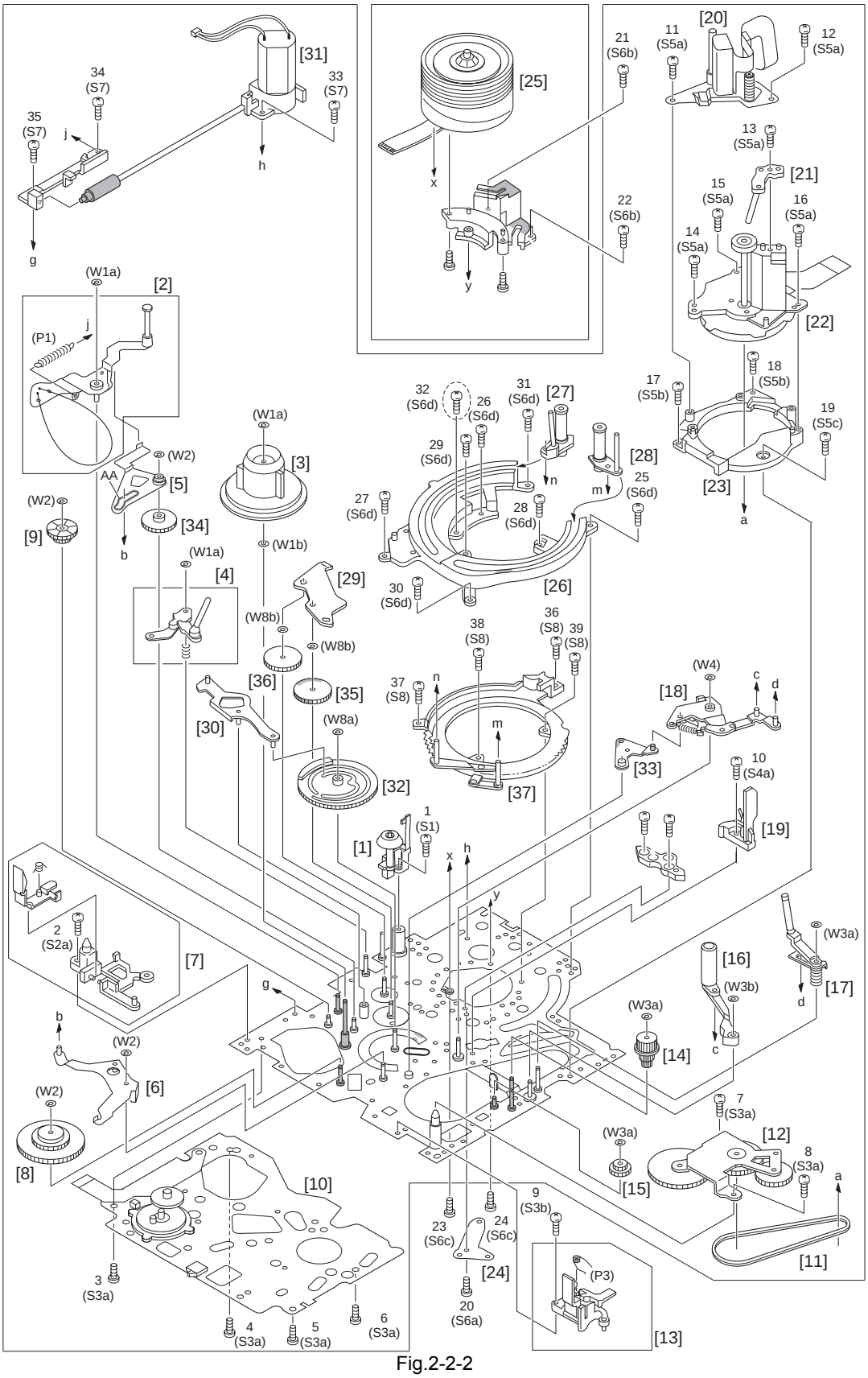

[31]
34 (S7)
33 (S7)
35 (S7)
j
h
g
[25]
x
y
21 (S6b)
22 (S6b)
[20]
11 (S5a)
12 (S5a)
13 (S5a)
[21]
15 (S5a)
16 (S5a)
14 (S5a)
[22]
(W1a)
[2]
(P1)
j
AA
(W2)
[5]
b
[34]
[9]
(W2)
(W1a)
[3]
(W1b)
[4]
[29]
(W8b)
(W8b)
[36]
[35]
[30]
(W8a)
[32]
32 (S6d)
26 (S6d)
31 (S6d)
[27]
29 (S6d)
n
[28]
m
25 (S6d)
27 (S6d)
28 (S6d)
[26]
30 (S6d)
17 (S5b)
18 (S5b)
19 (S5c)
[23]
a
38 (S8)
36 (S8)
39 (S8)
37 (S8)
n
m
[37]
(W4)
c
d
[18]
[33]
10 (S4a)
[19]
[1]
1 (S1)
x
h
y
2 (S2a)
[7]
g
b
(W2)
[6]
(W2)
[8]
[10]
3 (S3a)
4 (S3a)
5 (S3a)
6 (S3a)
23 (S6c)
24 (S6c)
9 (S3b)
[24]
20 (S6a)
(P3)
[13]
(W3a)
[16]
(W3b)
c
(W3a)
[14]
(W3a)
[17]
d
7 (S3a)
(W3a)
[15]
[12]
8 (S3a)
a
[11]

Fig.2-2-2

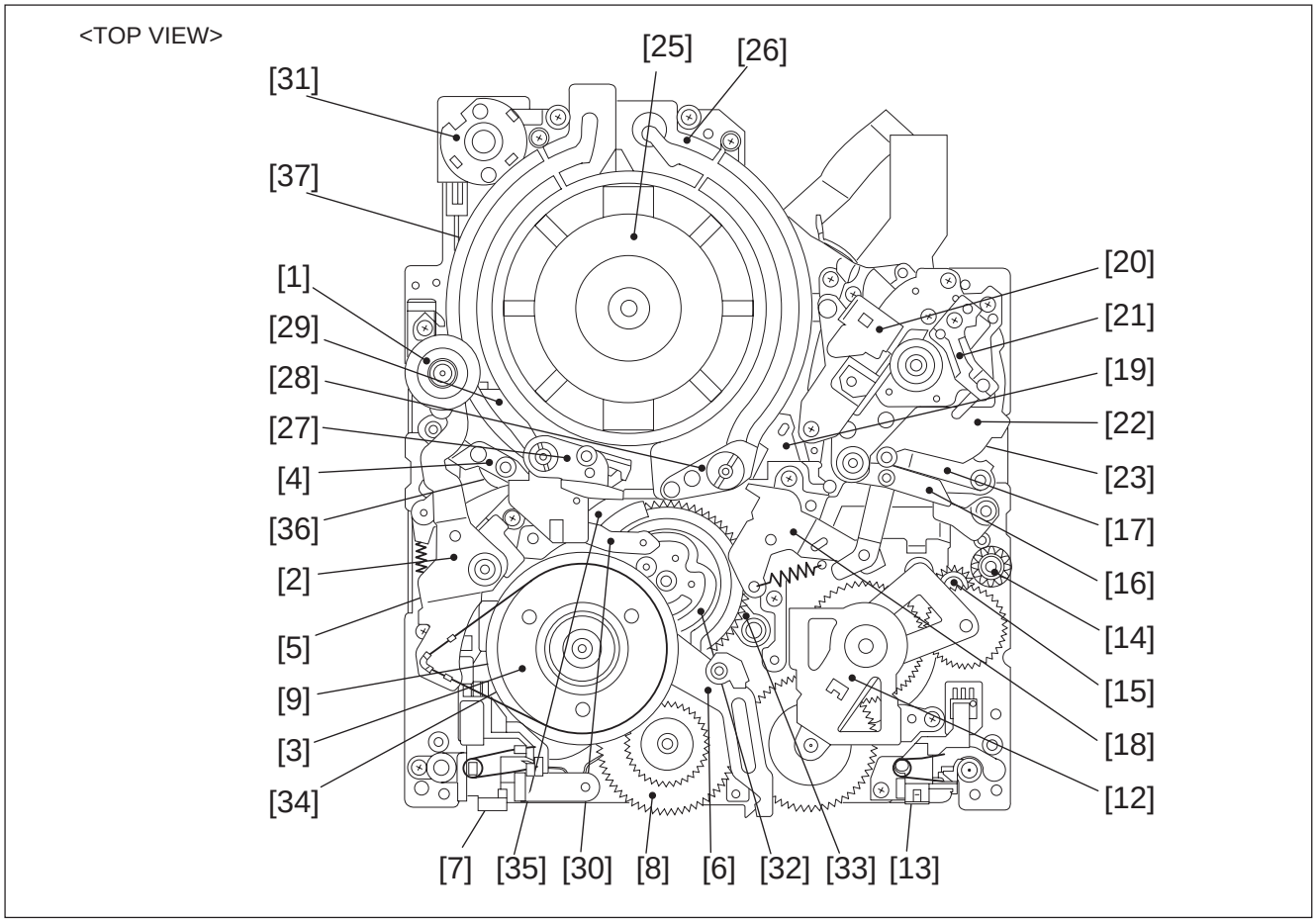


Fig.2-2-3

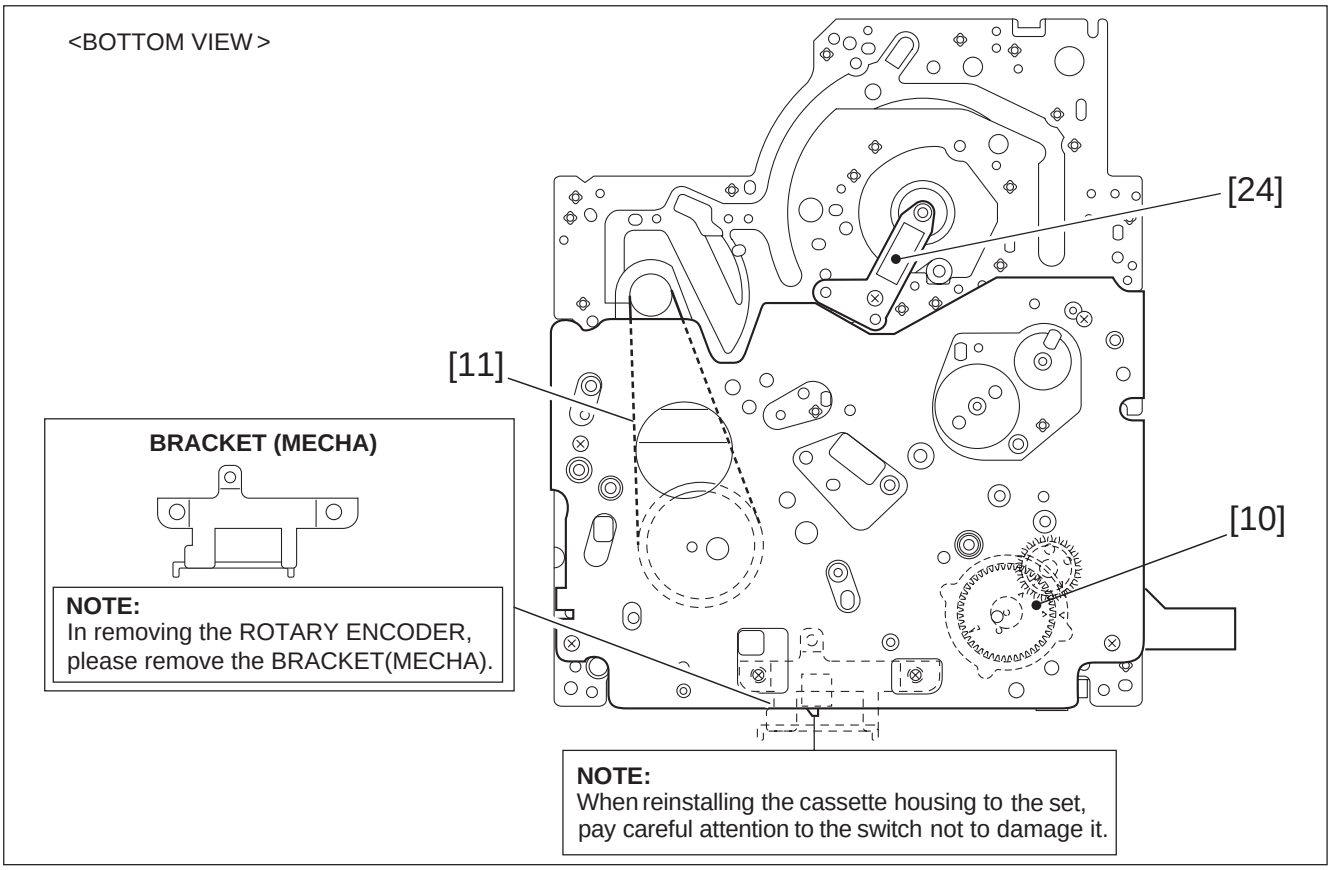

<BOTTOM VIEW>
[24]
[11]
[10]
BRACKET (MECHA)
NOTE:
In removing the ROTARY ENCODER, please remove the BRACKET(MECHA).
NOTE:
When reinstalling the cassette housing to the set, pay careful attention to the switch not to damage it.

Fig.2-2-4

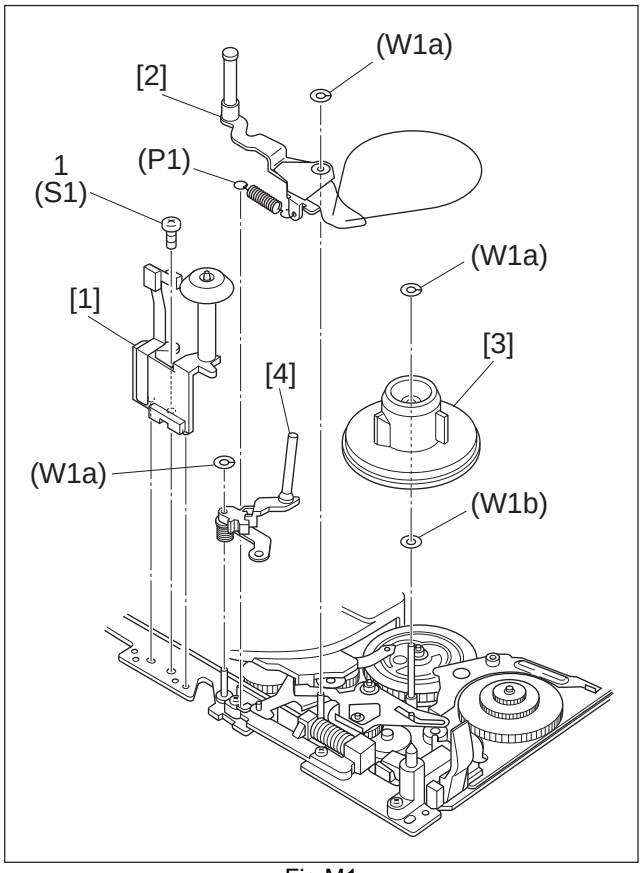


Fig.M1

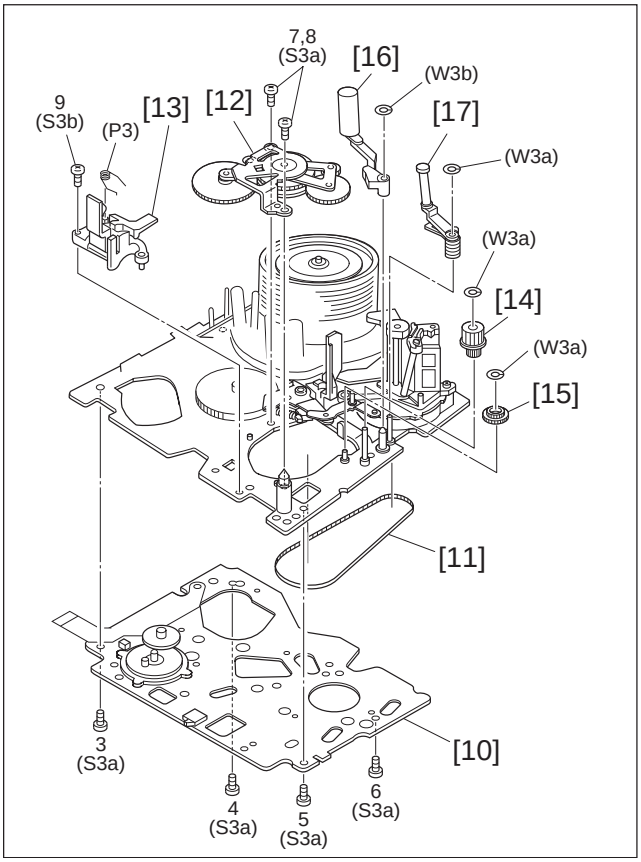


Fig.M3

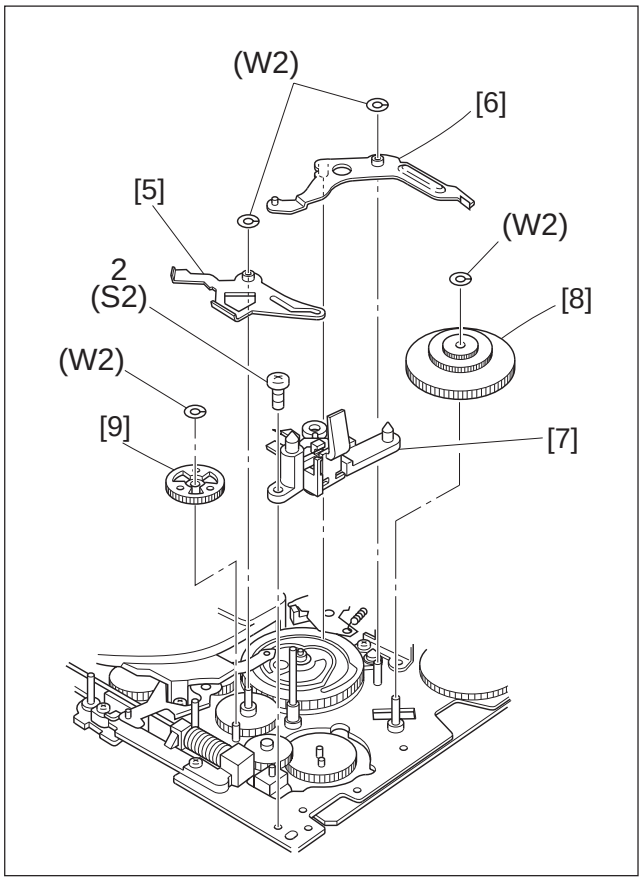


Fig.M2

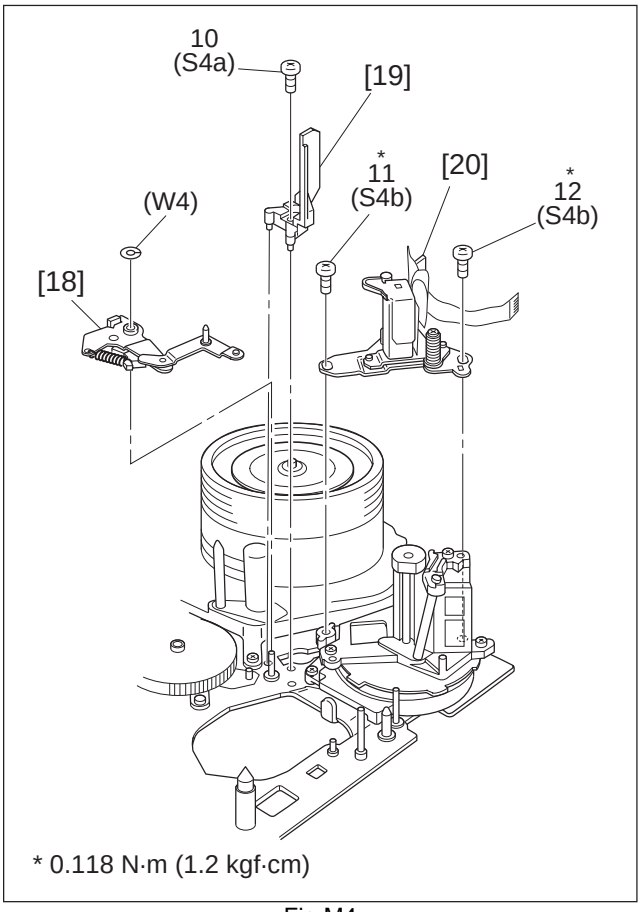


Fig.M4

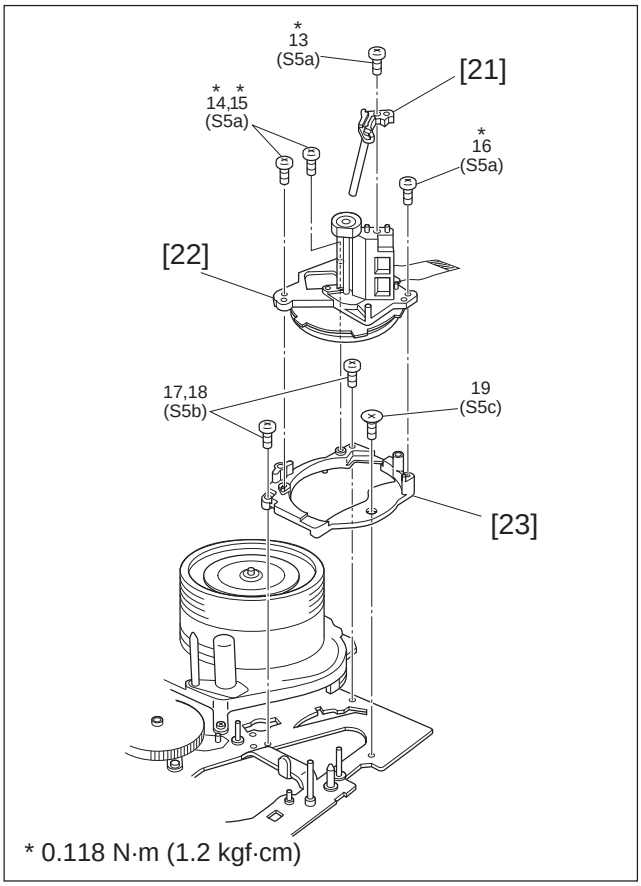


Fig.M5

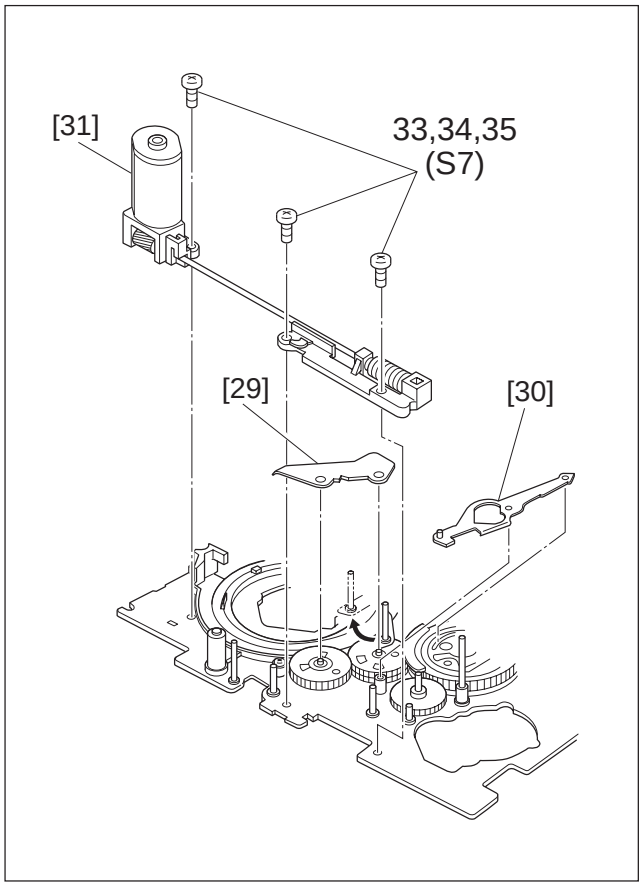


Fig.M7

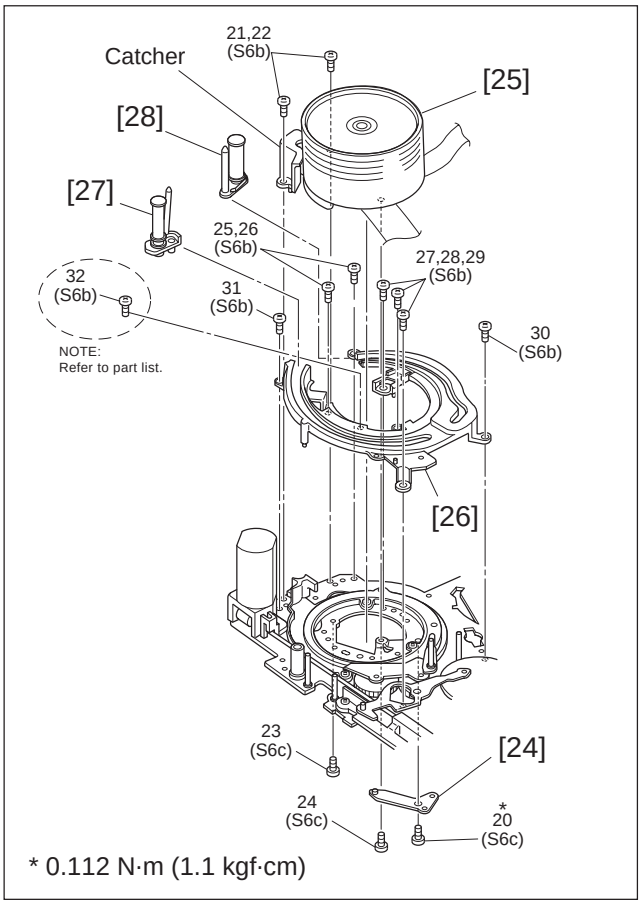


Fig.M6

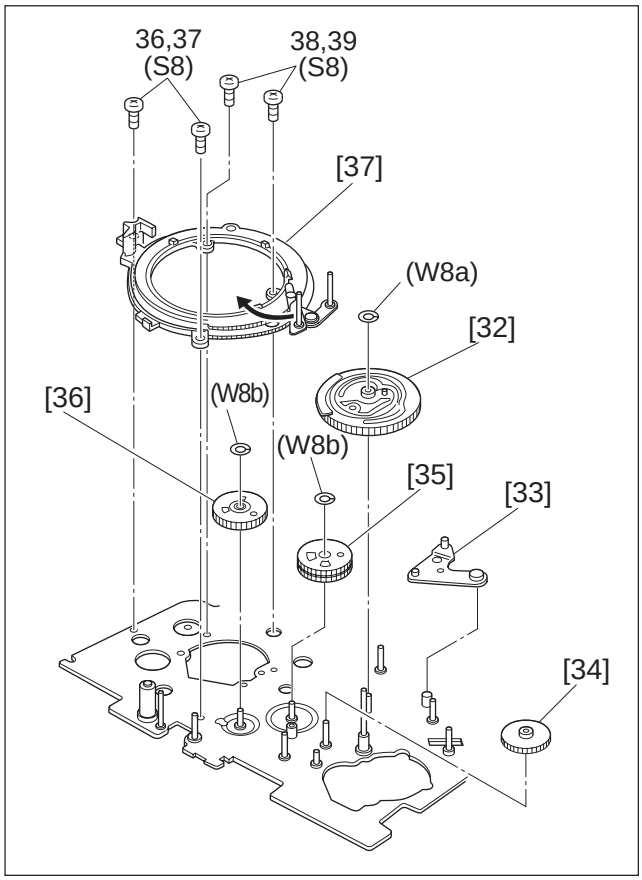


Fig.M8

2.2.4 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE

NOTE:

Pay careful attention to the installing order and phase of mechanism parts of the loading system.

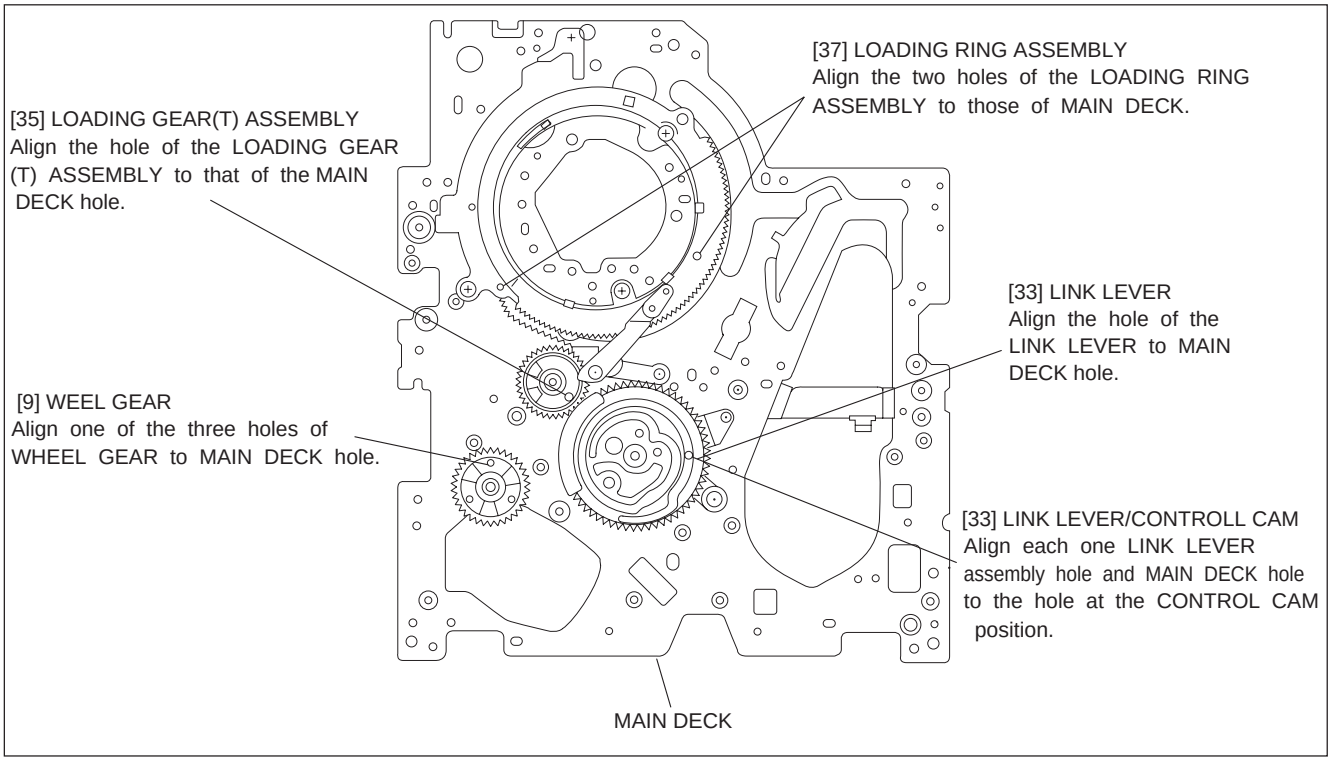

[37] LOADING RING ASSEMBLY
Align the two holes of the LOADING RING ASSEMBLY to those of MAIN DECK.
[35] LOADING GEAR(T) ASSEMBLY
Align the hole of the LOADING GEAR (T) ASSEMBLY to that of the MAIN DECK hole.
[33] LINK LEVER
Align the hole of the LINK LEVER to MAIN DECK hole.
[9] WEEL GEAR
Align one of the three holes of WHEEL GEAR to MAIN DECK hole.
[33] LINK LEVER/CONTROLL CAM
Align each one LINK LEVER assembly hole and MAIN DECK hole to the hole at the CONTROL CAM position.
MAIN DECK

Fig.2-2-5 Top of main deck

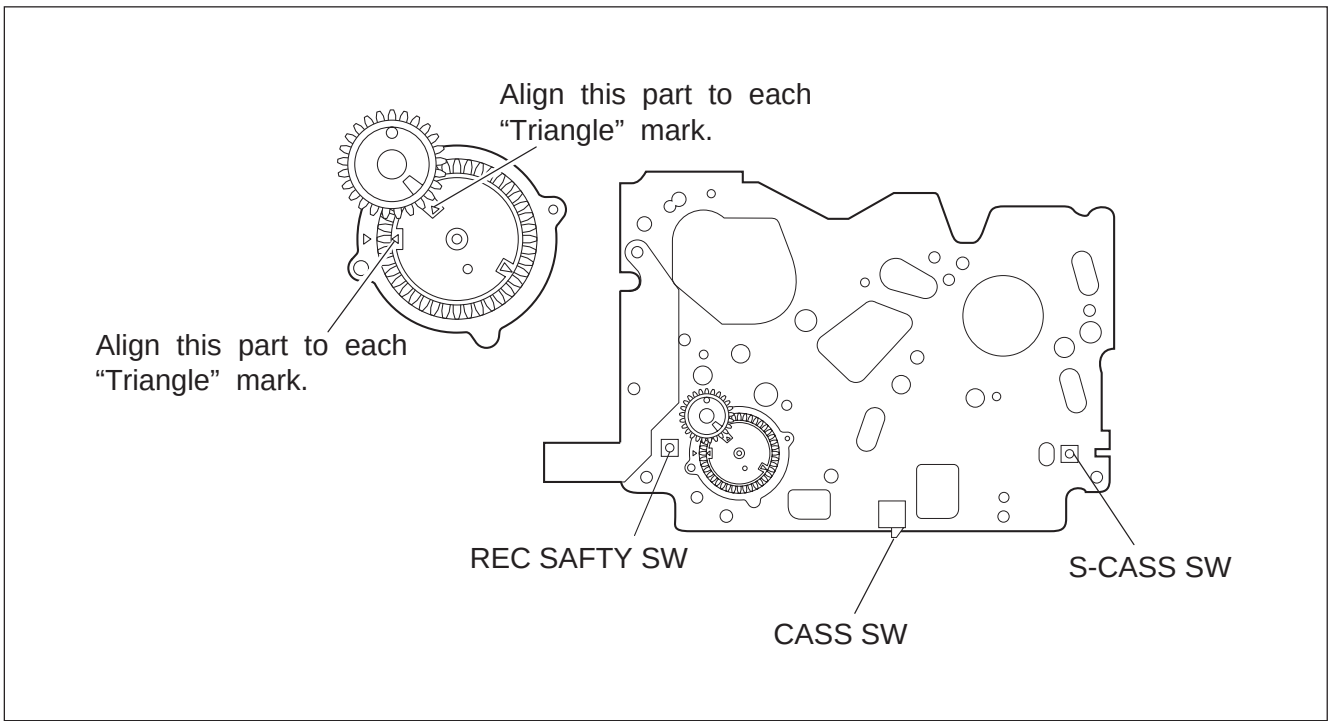


Fig.2-2-6 Rotary encoder

2.2.5 SERVISE NOTE

Use the following chart to manage screws.

Symbol No.	[1]	[7]	[10]				[12]		[13]	[19]	[20]		[21]	[22]			[23]		
Removing order of screw	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Place to stick screw																			
Reference drawing (Fig. No.)	M1	M2	M3							M4			M5						
Screw tightening torque	I										II						I		

Symbol No.	[24]	[25]			[26]							[31]			[37]		
Removing order of screw	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
Place to stick screw																				
Reference drawing (Fig. No.)	M6													M7			M8			
Screw tightening torque	III	I																		

<NOTE>

・Pay careful attention to tightening torque for each screw.
Torque setting value of torque driver is limited. At the values over the maximum torque setting value, fasten a screw manually not to damage the screw thread.

I : 0.216N・m(2.2kgf・cm)　　II : 0.118N・m(1.2kgf・cm)　　III : 0.112N・m(1.1kgf・cm)

Fig.2-2-7

2.2.6 REMARKS

2.2.6.1 Cleaning

(1) For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

NOTE:
Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

(2) For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.

(3) After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.2.6.2 Applying oil and grease

(1) Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.

(2) For parts and points to apply oil and grease, refer to the exploded view of the 3.2 VHS-C MECHANISM ASSEMBLY. Fig.2-2-8 specifies oil and grease to be used.

(3) When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB

specifies oil and grease to be used

Fig.2-2-8

2.3 VHS MECHANISM

2.3.1 Notes

This model's mechanism relates closely to the rotary encoder and system control circuit (the rotary encoder is meshed with the control cam).
The system control circuit detects the mechanism condition using the rotary encoder's phase (internal switch phase). Therefore, the parts such as the rotary encoder, control plate, loading gear and control cam need to be installed correctly in order for the mechanism to operate properly. (For the mechanism phase adjustment, refer to the installation of each part.)

- Before using a soldering iron, be sure to disconnect the power plug from the AC outlet.
- Do not touch any of the adjustment points until a defect position is specified.
- When plugging or unplugging the connector, be sure not to damage the wire.
- Be sure the springs are hooked all the way around and in the correct direction.
- When performing repairs, take care not to damage a catch, etc.

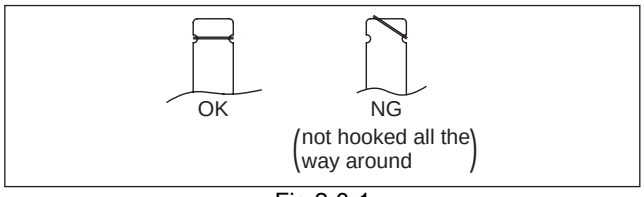


Fig.2-3-1

2.3.2 Mechanism operation check

When the mechanism is operated without a cassette loaded, operate the mechanism in the mechanism service mode.

2.3.3 Setting the mechanism assembling mode

The mechanism-assembling mode is provided with this mechanism. When disassembling and assembling, it is required to engage this mode.
Set the mode by adopting the following procedures.

(1) Remove the mechanism assembly using the disassembling procedure.
(2) Turn gear (a) of the loading motor manually to set the mechanism assembly to the eject end mode. Make sure that the main deck is connected to the guide hole (a) of the drive lever and the seal (a) of the main deck is connected to the mark "E" of the control plate. This condition is called the mechanism-assembling mode.

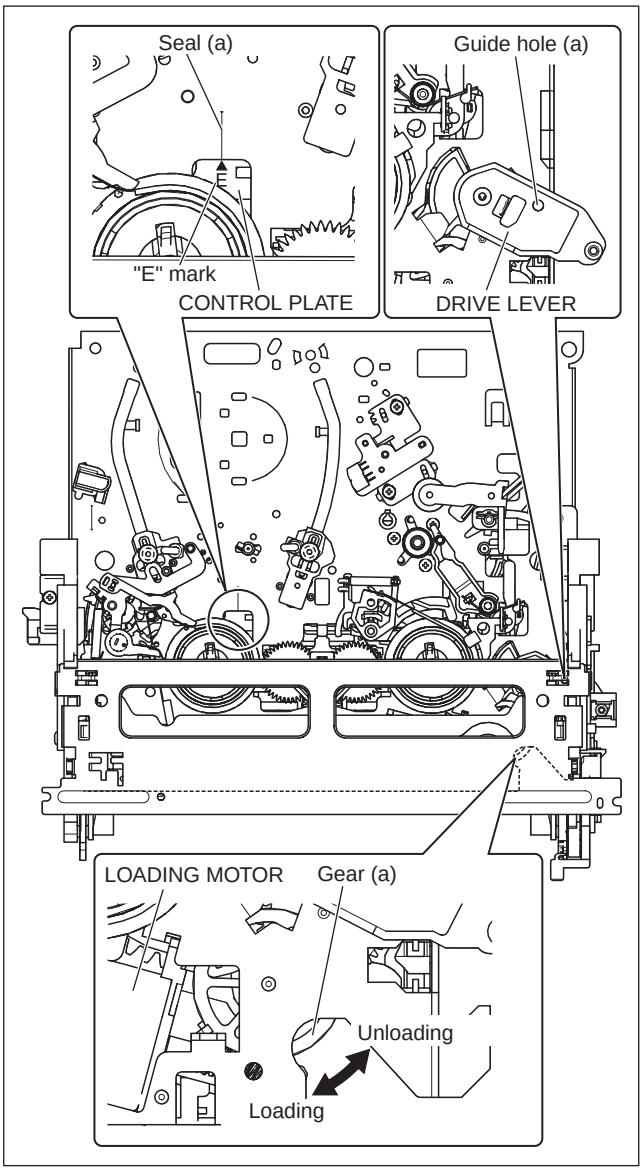


Fig.2-3-2

2.3.4 Layout of the main mechanism parts

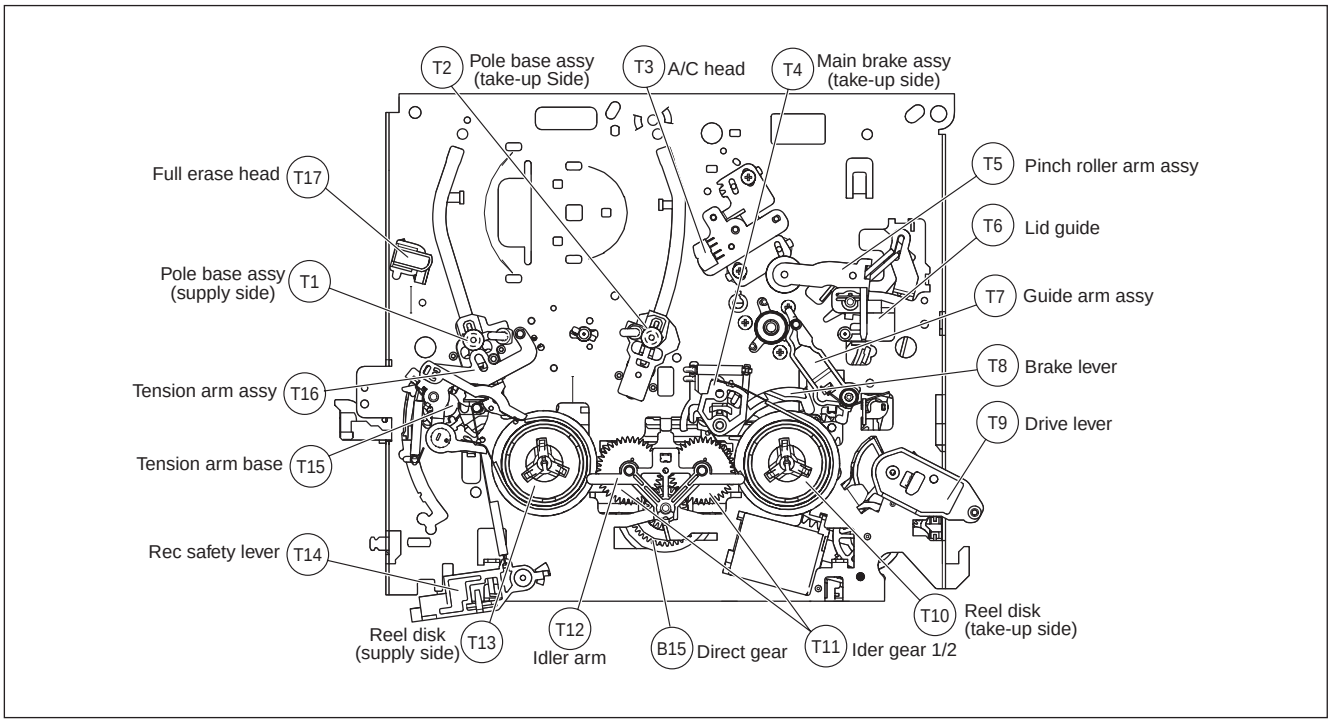

T2 Pole base assy (take-up Side)
T3 A/C head
T4 Main brake assy (take-up side)
Full erase head T17
T5 Pinch roller arm assy
T6 Lid guide
Pole base assy (supply side) T1
T7 Guide arm assy
T8 Brake lever
Tension arm assy T16
T9 Drive lever
Tension arm base T15
Rec safety lever T14
T10 Reel disk (take-up side)
Reel disk (supply side) T13
T12 Idler arm
B15 Direct gear
T11 Ider gear 1/2

Fig.2-3-3

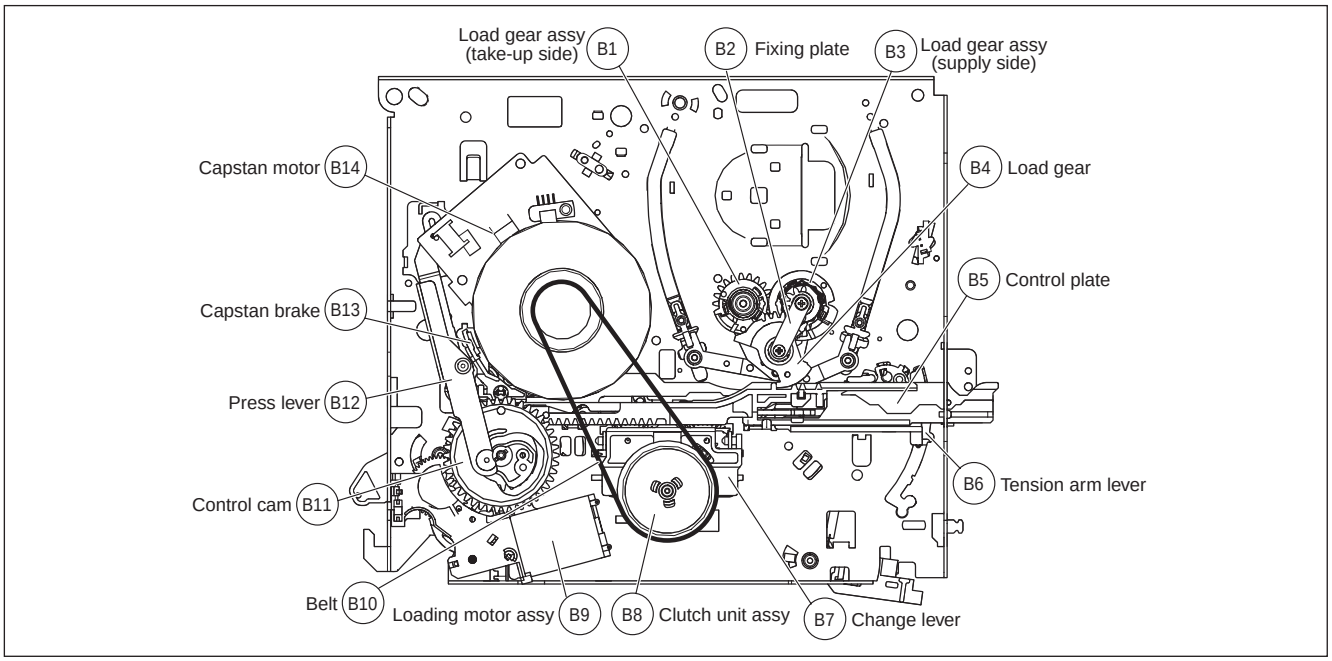


Fig.2-3-4

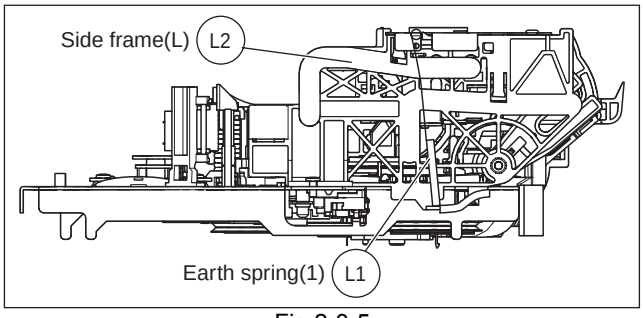


Fig.2-3-5

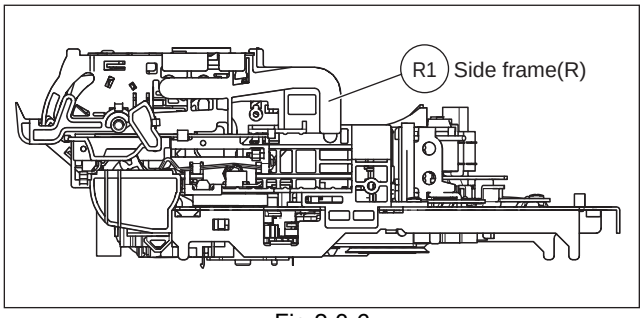


Fig.2-3-6

2.3.5 Disassembling procedure table

This table shows the order of parts removal when replacing each part. For replacement, remove the parts in the order of 1 to 13 shown in the table and install the parts in the reverse order.

The symbol number before each part name shows the number in the figure “Layout of the main mechanism parts”. T and B on the right of each part name show the side from which the part should be removed (T: From the front of the mechanism, B: From the rear of the mechanism, T/B: From both sides).

Symbols and numbers	Removal parts / (Reference items) Replacement parts	Front(T)/Back(B) of mechanism	Number of removal steps	Earth spring (1)	Top frame	Cassette holder	Side frame (L)	Drive arm	Side frame (R)	Lid guide	Idler arm	Idler gear 1/2	Main brake (T)	Reel disk (T)	Tension arm	Tension arm base	Press lever	Control cam	Capstan brake assy	Loading motor assy	Belt	Fixing plate	Load gear	Loading gear assy (S)	Loading gear assy (T)	Control plate	Clutch unit	Direct gear
L1	2.1 Earth spring (1)	T	1																									
-	2.1 Top frame	T	2	1																								
-	2.1 Cassette holder	T	3	1	2																							
L2	2.1 Side frame (L)	T	3	1	2																							
-	2.1 Drive arm	T	5	1	2	3	4																					
R1	2.1 Side frame (R)	T	3	1	2																							
T3	2.2 A/C head	T	1																									
T17	- FE head	T/B	1																									
T7	2.3 Guide arm assy	T	1																									
T6	2.3 Lid guide	T	1																									
T5	2.3 Pinch roller arm assy	T	2							1																		
T12	2.4 Idler arm	T	4	1	2	3																						
T11	2.4 Idler gear 1/2	T	5	1	2	3					4																	
T4	2.5 Main brake assy (T)	T	6	1	2	3					4	5																
T10	2.5 Reel disk (T)	T	7	1	2	3					4	5	6															
T16	2.5 Tension arm	T	6	1	2	3					4	5																
T13	2.5 Reel disk (S)	T	7	1	2	3					4	5			6													
T15	2.5 Tension arm base	T	7	1	2	3					4	5			6													
-	- T-up head	T	8	1	2	3					4	5			6	7												
-	- T-up lever	T	8	1	2	3					4	5			6	7												
T8	2.5 Brake lever	T	8	1	2	3					4	5	6	7														
T14	2.5 Rec safety lever	T	7	1	2	3	4	5	6																			
B12	2.6 Press lever	B	1																									
B11	2.6 Control cam	B	2														1											
B13	2.6 Capstan brake assy	B	3														1	2										
B9	2.6 Loading motor assy	B	4														1	2	3									
B10	2.7 Belt	B	1																									
B14	2.7 Capstan motor	T/B	2																		1							
-	- Wire holder	T/B	1																									
B2	2.7 Fixing plate	B	1																									
B4	2.7 Load gear	B	2																			1						
B3	2.7 Loading gear assy(S)	B	3																			1	2					
B1	2.7 Loading gear assy(T)	B	4																			1	2	3				
T1	- Pole base assy(S)	T/B	4																			1	2	3				
T2	- Pole base assy(T)	T/B	5																			1	2	3	4			
-	- Load gear base	B	5																			1	2	3	4			
B5	2.7 Control plate	B	6														1	2			3	4	5					
T9	- Drive lever	T/B	10	1	2	3	4	5	6								7	8		9								
B8	2.8 Clutch unit	B	2																		1							
B15	2.8 Direct gear	B	3																		1						2	
B7	- Change lever	T/B	6								1	2									3						4	5
B6	- Tension arm lever	T/B	14	1	2	3					4	5			6	7	8	9			10	11	12			13		

2.3.6 REPLACEMENT OF THE MAIN MECHANISM PARTS

2.3.6.1 Cassette holder

2.3.6.1.1 Removal

(1) Remove the screws (a) and (b).
(2) Hold up the top frame, cassette holder assembly, drive arm assembly and side frames (L/R) all together and remove them by releasing the hooks (a) and (b).

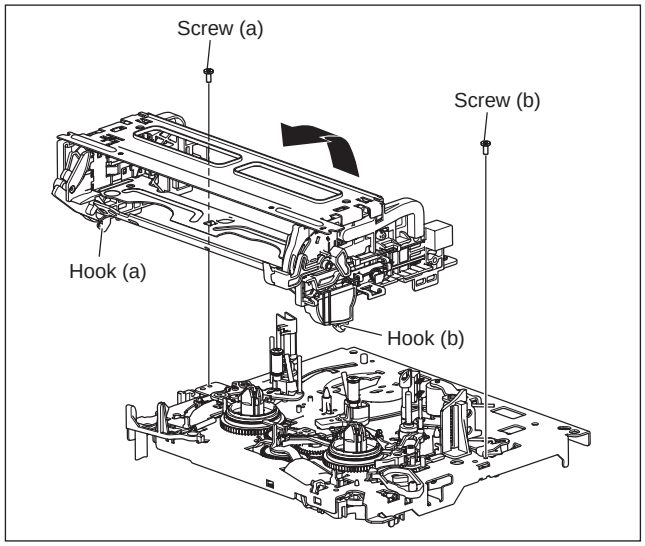


Fig.2-3-7

2.3.6.1.2 Installation (phase adjustment)

(1) Turn gear (a) of the loading motor assembly so that the main deck connects to the guide hole (a) of the drive lever.
(2) Hook the main deck to hooks (a) and (b).
(3) Place the projection of the drive lever to section (a) of the side frame (R) and install the cassette holder to the main deck. Make sure that the bosses of the side frame (L/R) connect with the holes (a) and (b) of the main deck.
(4) Secure screws (a) and (b).

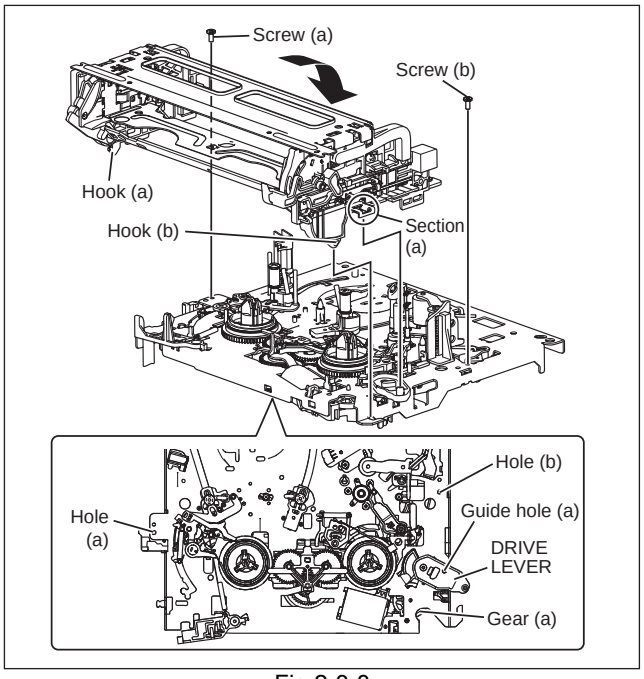


Fig.2-3-8

2.3.6.1.3 Disassembling

(1) Release hook (a) to remove the earth spring (1) from the top frame.
(2) Release the catches (a) and (b) and pull the top frame in the direction shown by the arrow (a) to remove it.
(3) Pull out the side frame (R).
(4) Pull out the cassette holder assembly and drive arm assembly from the side frame (L).

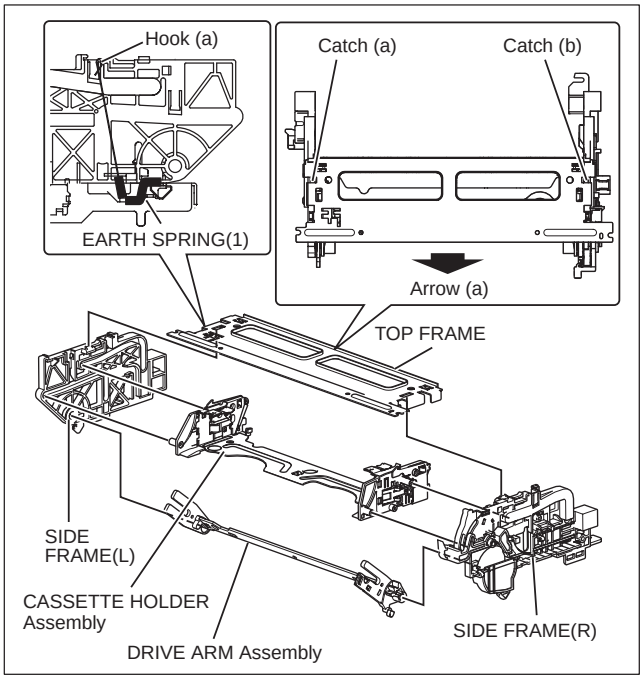


Fig.2-3-9

2.3.6.1.4 Assembling (installation and phase adjustment)

(1) Turn gear (a) of the loading motor assembly so that the main deck connects to the guide hole (a) of the drive lever.
(2) Place the projection of the drive lever on section (a) of the side frame (R) and install the side frame (R) to the main deck.
(3) Secure screw (b).
(4) Place section (b) of the drive arm on the gear of the side frame (R). Make sure that the pin of the door opener connects with section (c) of the drive arm.
(5) Place the drive arm on section (d) of the side frame (L) and install the side frame (L) on the main deck. Be sure to connect the earth spring (1) to the side frame (L).
(6) Secure screw (a).
(7) Turn gear (a) of the loading motor assembly until the drive arm is vertical.
(8) Place the slit of the side frame (L/R) at the foot of the cassette holder assembly and install the cassette holder.
(9) Place the top frame on the position guide (a) of the side frame (L/R) and push it in the direction shown by the arrow (a) for installation.
(10) Hook the earth spring (1) to the hook (a) of the top frame.

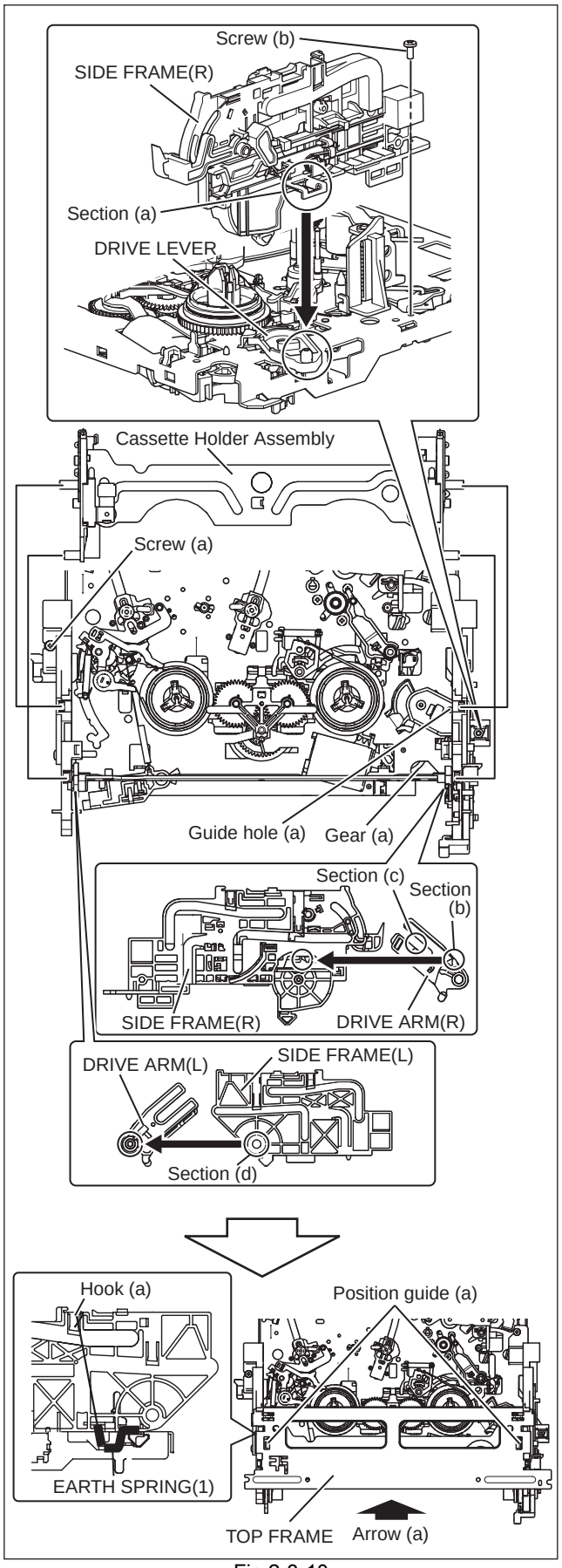


Fig.2-3-10

2.3.6.2 A/C head

2.3.6.2.1 Removal

(1) Remove screws (a) and (b).
(2) Remove the A/C head together with the head base.
(3) Remove the screws (c), (d) and (e) to remove the spring (a) and the A/C head from the Head base.

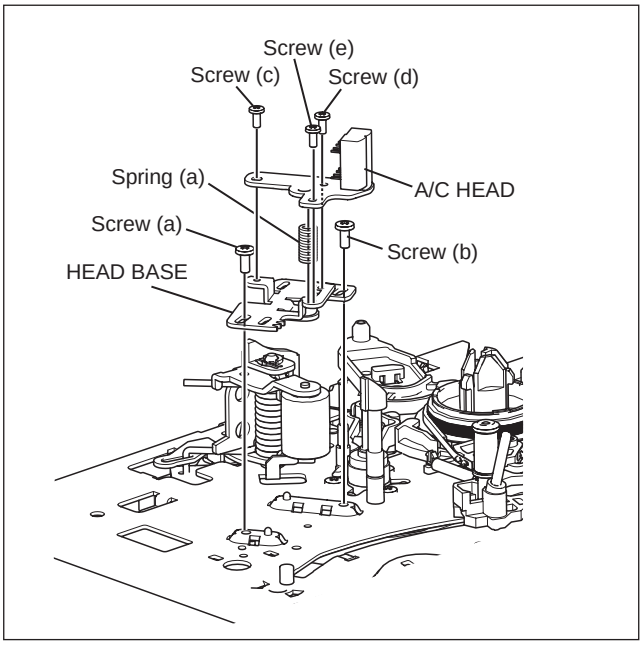


Fig.2-3-11

2.3.6.2.2 Installation (initial setting)

To install the A/C head to the head base, secure the screws in the order of (c), (d) and (e). To make the adjustment easy, temporarily elevate the A/C head.

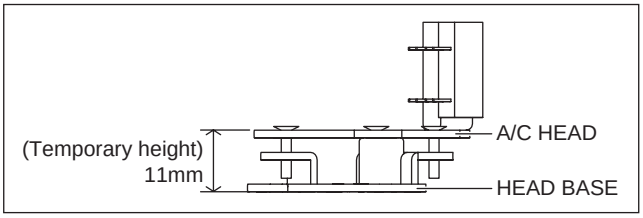


Fig.2-3-12

2.3.6.3 Guide arm, pinch roller arm

2.3.6.3.1 Removal

(1) Remove the spring (a) from the hook (a) and detach the guide arm assembly.
(2) Release the catch (a) to remove the lid guide.
(3) Remove the spring (b) from the hook (b) and detach the pinch roller arm assembly.

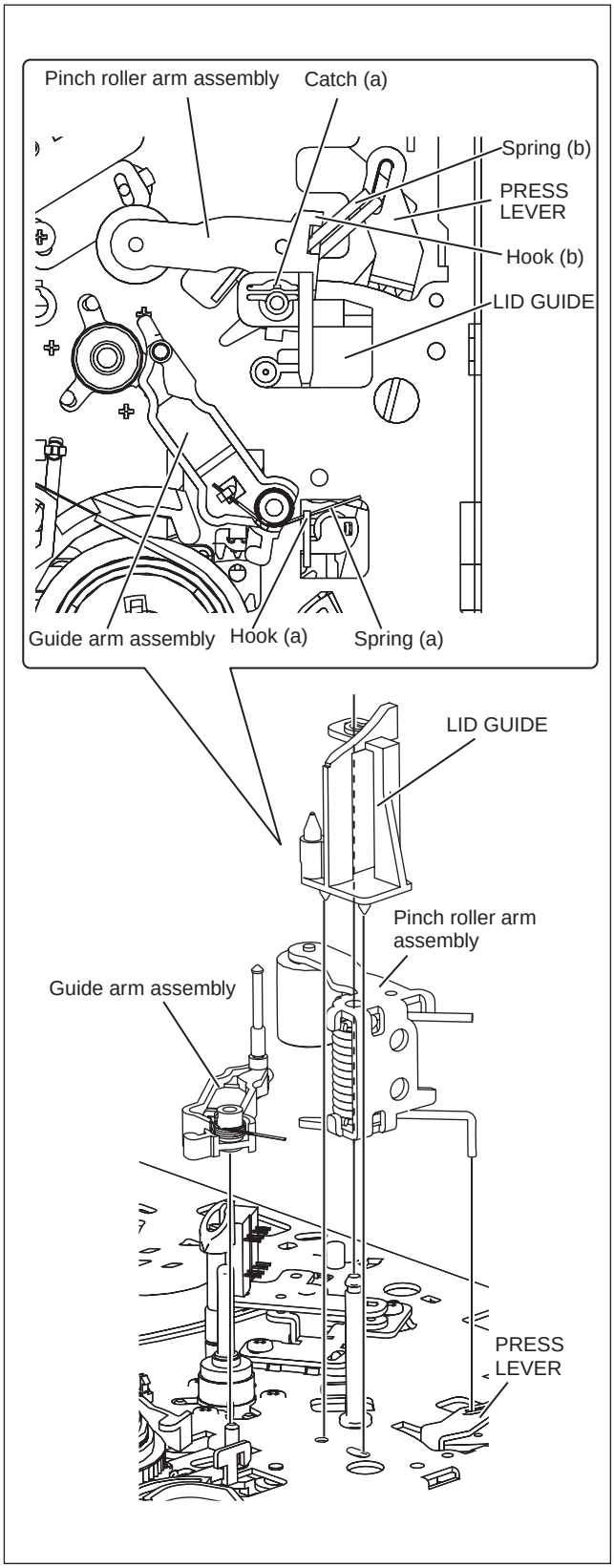


Fig.2-3-13

2.3.6.4 Idler arm, idler gear 1/2

2.3.6.4.1 Removal

(1) Release the catches (a) and (b) to detach the idler arm.
(2) Detach the idler gear 1/2.

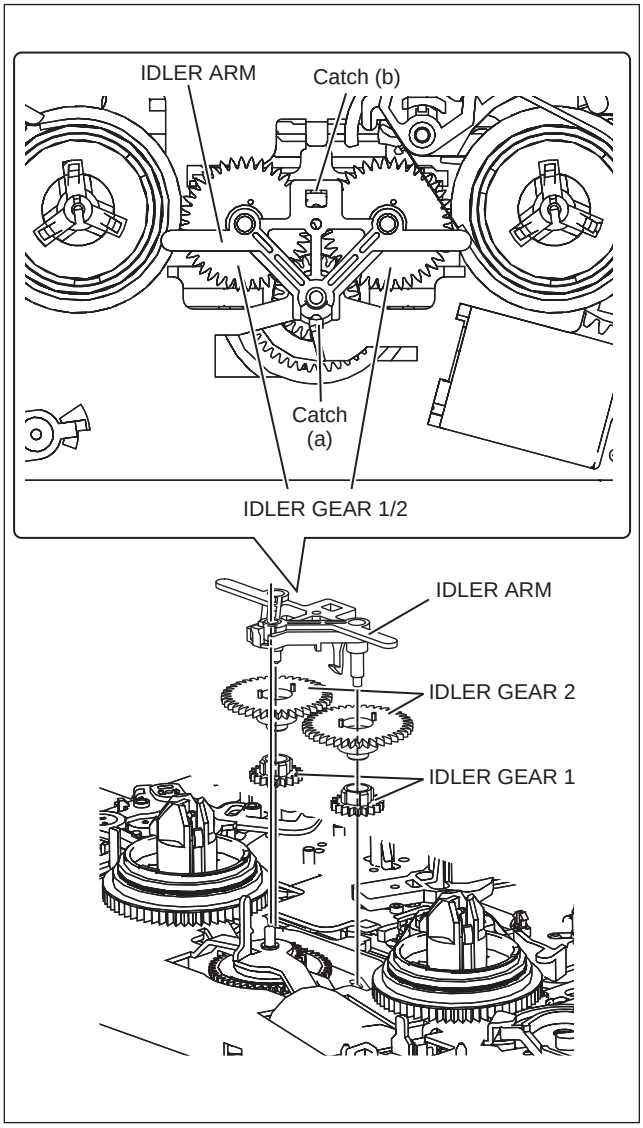


Fig.2-3-14

2.3.6.5 Main brake (T), brake lever, tension arm, reel disk (S/T), Rec safety lever

2.3.6.5.1 Removal

(1) Remove the spring (a). (Detach section (b) of the spring (a).)
(2) Release the catch (a) to detach the main brake (T).
(3) Release the catch (b) to detach the reel disk (T) and the spacer.
(4) Lift up and turn section (b) of the brake lever counterclockwise to remove the brake lever.
(5) Remove the spring (b) from the hook (a).
(6) Release the catch (c) to detach the tension arm.
(7) Release the catch (d) to detach the reel disk (S) and the spacer.
(8) Remove the spring (c) from the hook (b).
(9) Turn the tension arm base in the direction shown by arrow (a) to release catch (e). Place the projections of the tension arm base to the holes (a) to detach the tension arm base.
(10) While releasing the catch (f), turn the Rec safety lever counterclockwise to remove it.

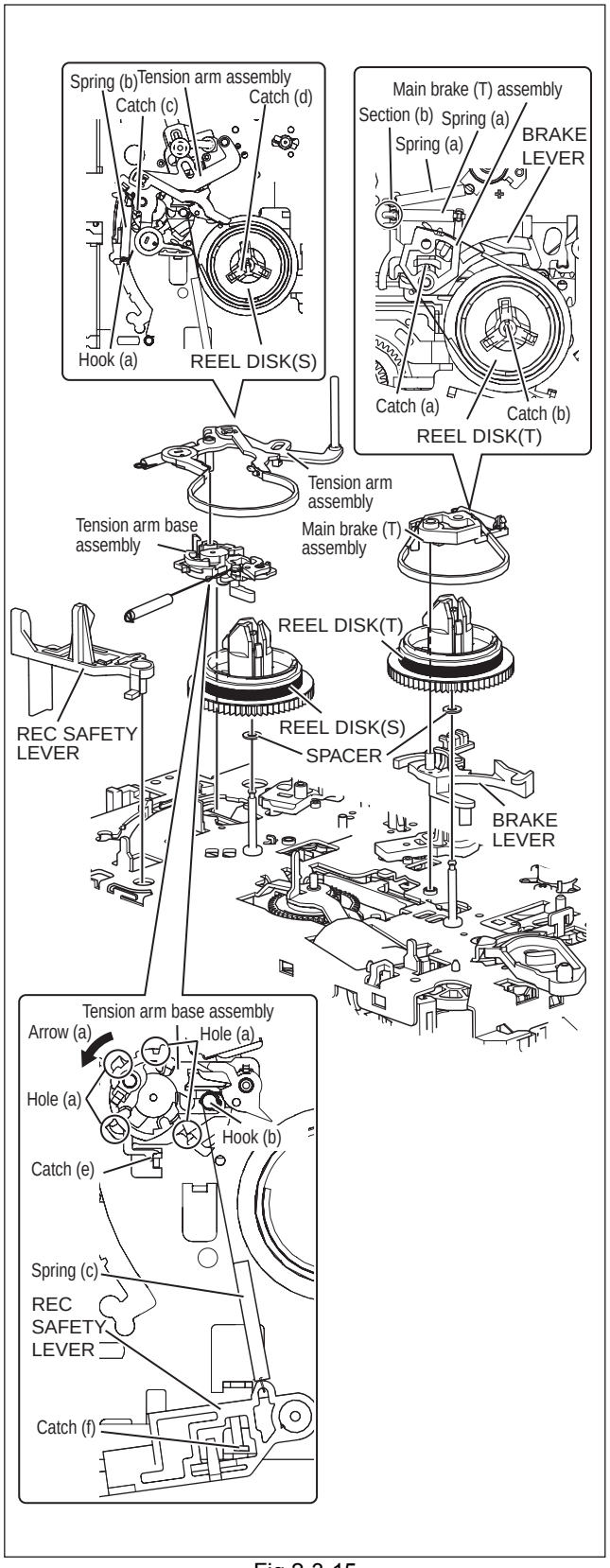


Fig.2-3-15

2.3.6.6 Press lever, control cam, capstan brake assembly, loading motor assembly

2.3.6.6.1 Removal

(1) Remove the slit washer (a) to detach the press lever.
(2) Release the slit washer (b) to detach the control cam.
(3) Release the catch (b) to detach the capstan brake assembly.
(4) Remove the solder (a).
(5) Remove the screw (a).
(6) Release the catches (c) and (d) to detach the loading motor assembly.

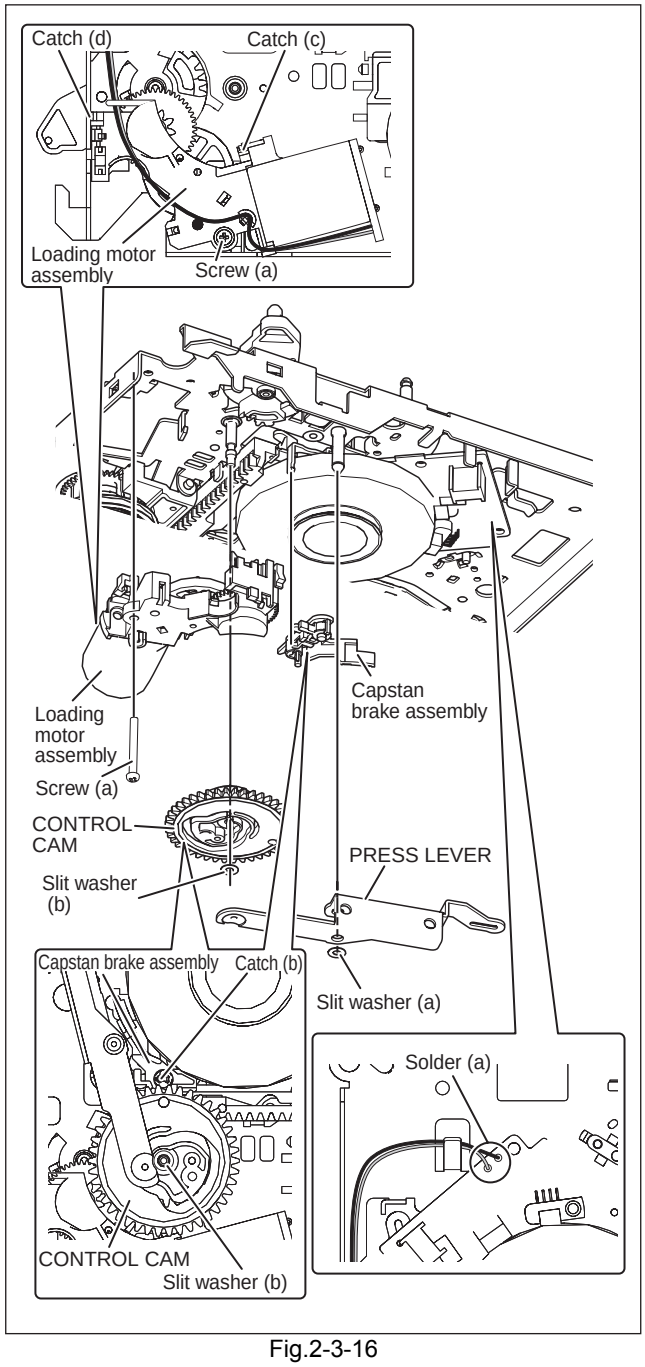


Fig.2-3-16

2.3.6.6.2 Installation (phase adjustment)

(1) Attach the loading motor assembly to the main deck.
(2) Secure the screw (a).
(3) Solder the wire to section (a).
(4) Arrange the wire along with the position guide (b).
(5) Attach the capstan brake assembly to the main deck.
(6) Place the main deck on the guide hole (a) of the control plate.
(7) Place the main deck on the guide hole (b) of the drive lever.
(8) Place the main deck no guide hole (c) of the control cam to install the control cam.
(9) Move the capstan brake in the direction shown by the arrow (a) to attach the press lever to the shaft (a). Make sure that the boss of the press lever fits in the control cam, and that the shaft (b) of the pinch roller arm assembly connects with the hole of the press lever.
(10) Attach slit washer (a) to shaft (a).

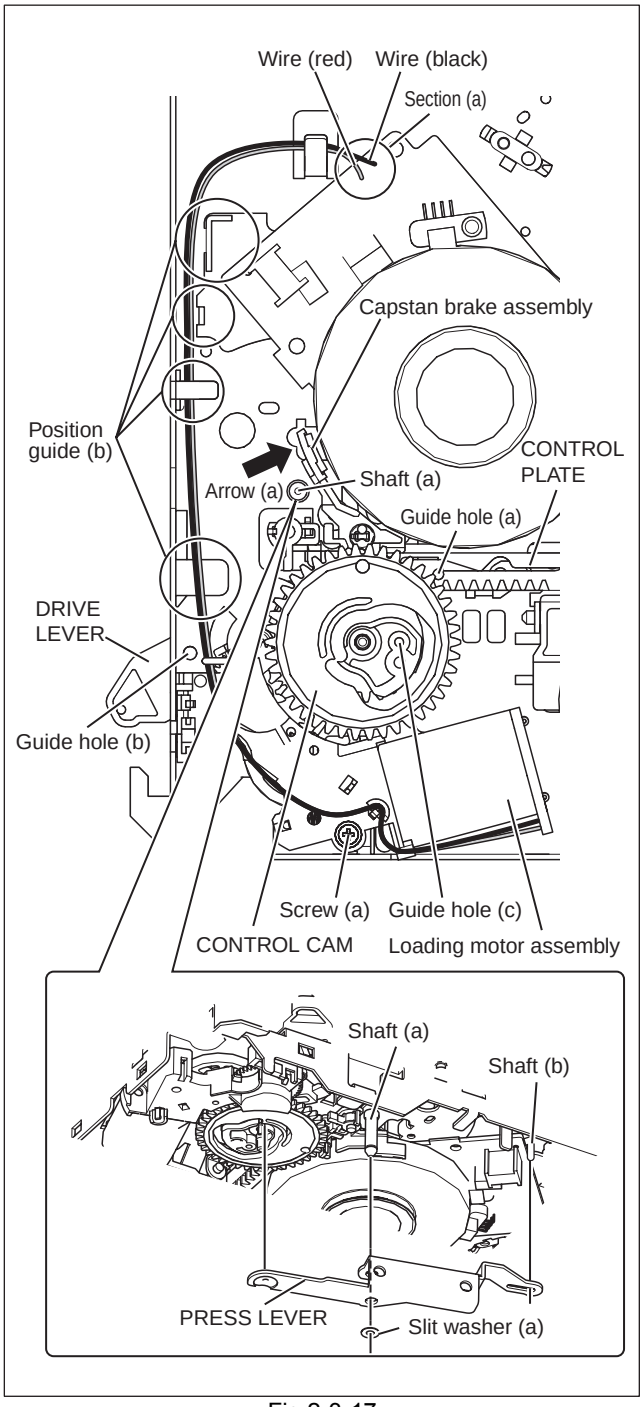


Fig.2-3-17

Note:

- When replacing the worm bearing of the loading motor assembly, attach it according to the following specification.
  If worm bearing is not attached correctly, a mechanism noise may occur. (See Fig. 2-3-18)

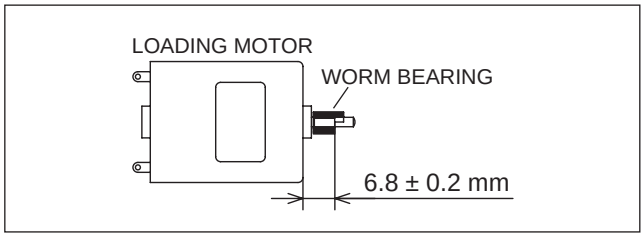


Fig.2-3-18

2.3.6.7 Capstan motor, load gear, control plate

2.3.6.7.1 Removal

(1) Detach the belt.
(2) Check that the FFC connector on the drum is disconnected.
(3) Release the catch (a) to remove the FFC wire.
(4) Remove the screws (a) to detach the capstan motor.
(5) Remove the screws (b) to detach the fixing plate.
(6) Release the catch (b) to detach the load gear.
(7) Turn the load gear (S/T) in the loading direction to detach it.
(8) Remove the control plate.

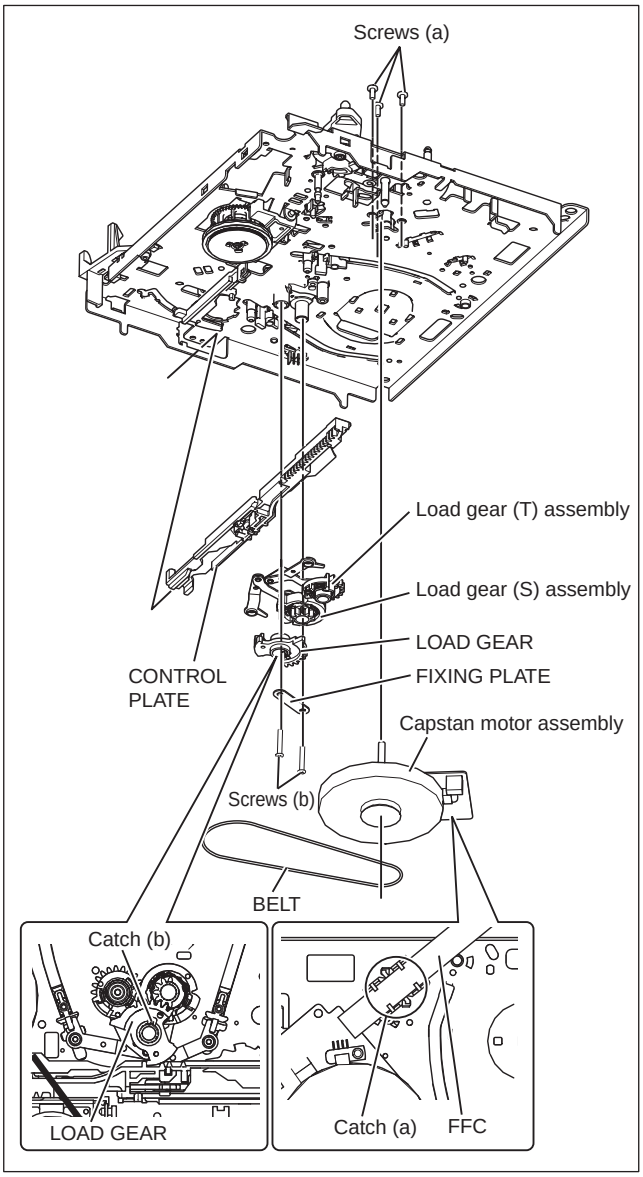


Fig.2-3-19

2.3.6.7.2 Installation (phase adjustment)

(1) Place the main deck on the guide hole (a) of the tension arm lever.
(2) Place the main deck on the guide hole (b) of the brake lever.
(3) Attach the control plate to align with the position guide (a).
(4) Place the hole (c) of the load arm (T) on the pole base (T) and the load gear (T) on the load gear base.
(5) Place the hole (d) of the load arm (S) on the pole base (S) and the load gear (S) on the load gear base. Be sure to align the guide mark (e) of the load gear (T) to that of the load gear (S).
(6) Turn the load gear (S/T) in the unloading direction to place the main deck on the guide hole (f) of the load gear (T).
(7) Place the main deck on the guide hole (g) of the control plate.
(8) Attach the load gear on the load gear base so that the control plate is placed on the edge (h) of the load gear.
(9) Place the fixing plate on the shaft of the load gear base and secure the screws (b).

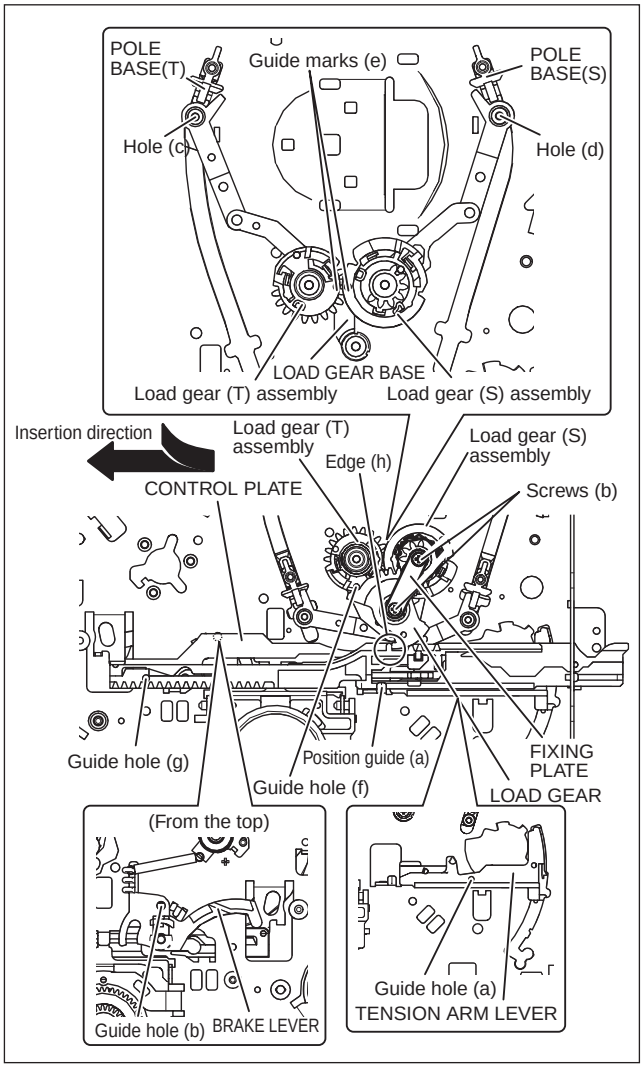


Fig.2-3-20

2.3.6.8 Clutch unit assembly, direct gear

2.3.6.8.1 Removal

(1) Remove the slit washer (a) to detach the clutch unit assembly.
(2) Remove the spring (a) and the direct gear.

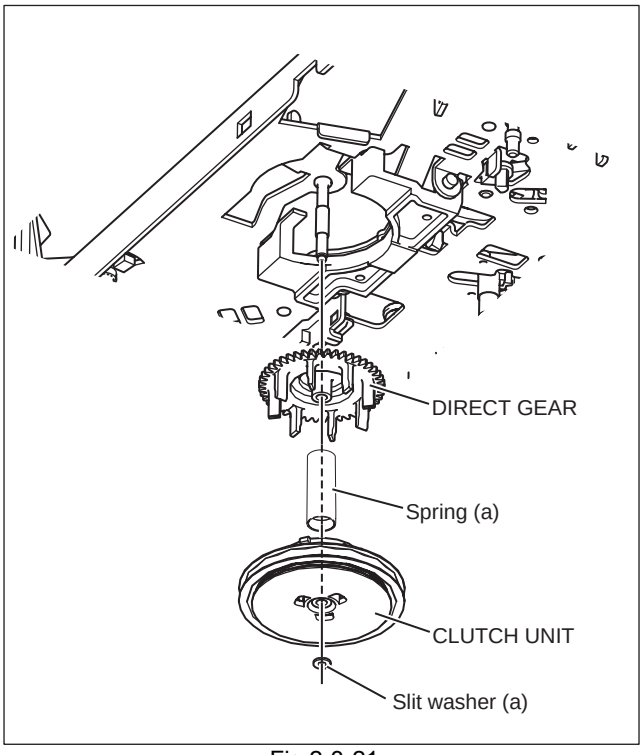
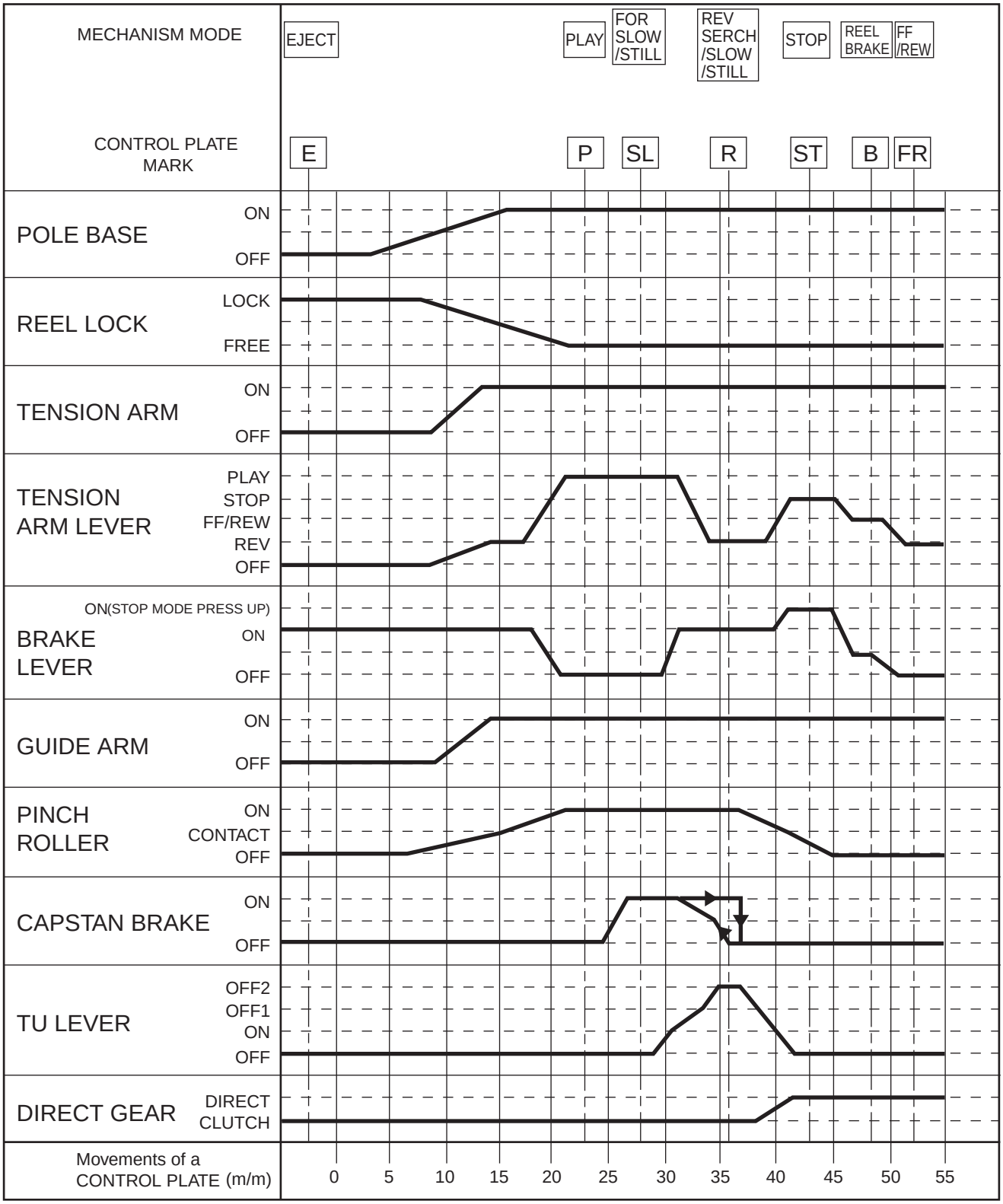


Fig.2-3-21

2.3.7 MECHANISM TIMING CHART



2.3.8 REMARKS

2.3.8.1 Cleaning

(1) For cleaning of the upper drum (particularly video heads), use fine-woven cotton cloth with alcohol soaks through. Do not move the cloth but turn the upper drum counterclockwise.

NOTE:
Make sure not to move the cloth in the vertical direction to the video head, since it may cause damage of the video heads.

(2) For cleaning of parts of the tape transport system except the upper drum, use fine-woven cotton cloth or cotton swab soaked alcohol.

(3) After cleaning, confirm that the cleaned parts are completely dry before loading the deck with cassette tape.

2.3.8.2 Applying oil and grease

(1) Periodical oiling and greasing are not required but should be done to new parts when replacing. If oil and grease on the other parts of the other party are old and dirty, wipe them clean and apply new oil or grease.

(2) For parts and points to apply oil and grease, refer to the exploded view of the 3.3 VHS MECHANISM ASSEMBLY. Fig.2-3-22 specifies oil and grease to be used.

(3) When oiling, clean the objective parts with alcohol first and apply one or two drop(s) of oil. Too much oiling causes rotary parts to slip because of oil leakage.

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

specifies oil and grease to be used

Fig.2-3-22

JVC

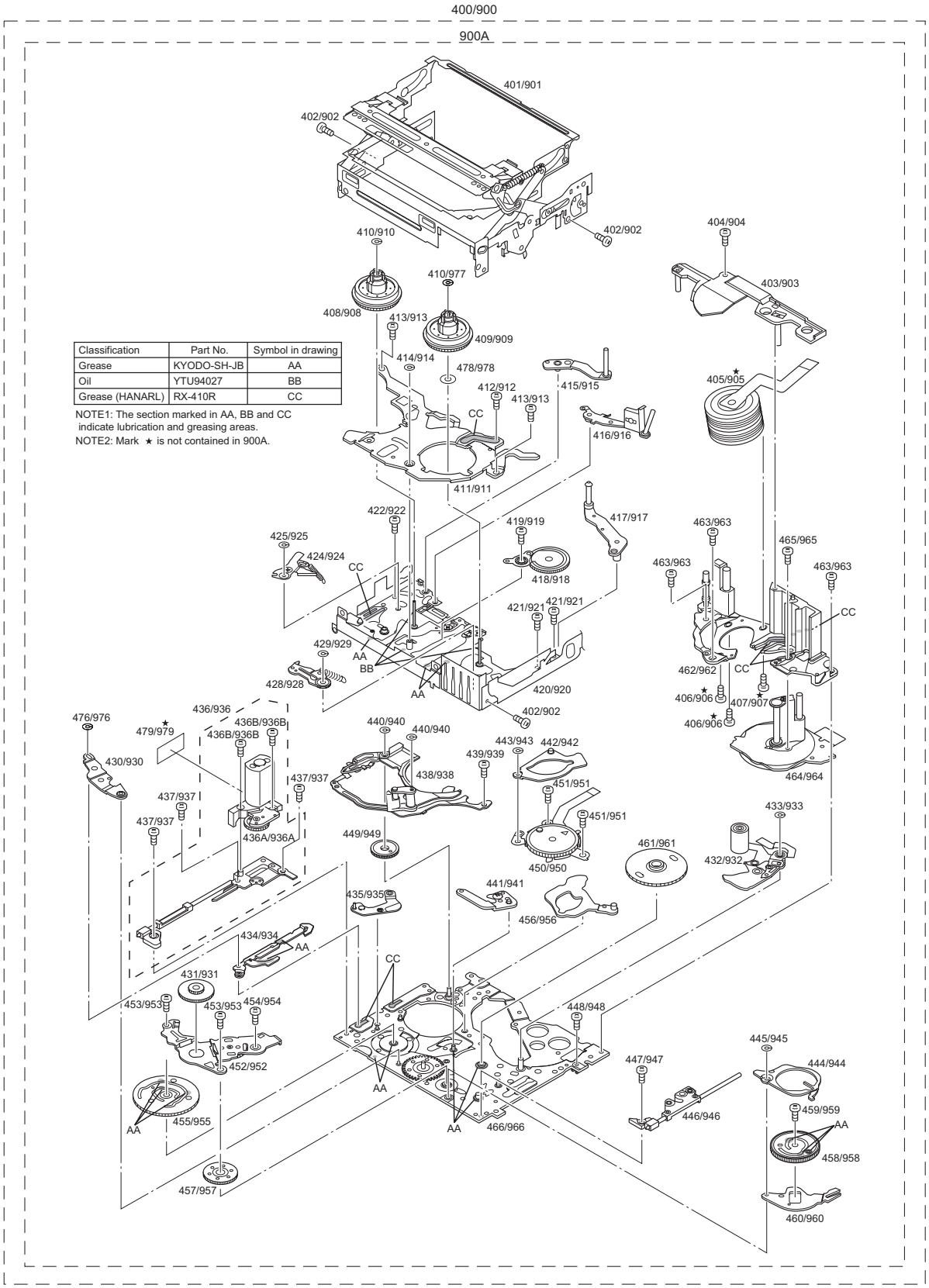
VICTOR COMPANY OF JAPAN, LIMITED
AV & MULTIMEDIA COMPANY CAMCORDER CATEGORY 12, 3-chome, Moriya-cho, kanagawa-ku, Yokohama, kanagawa-prefecture, 221-8528, Japan

(No.86700)

Printed in Japan
200304WPC

SECTION 3
PARTS LIST

3.1 DVC MECHANISM ASSEMBLY



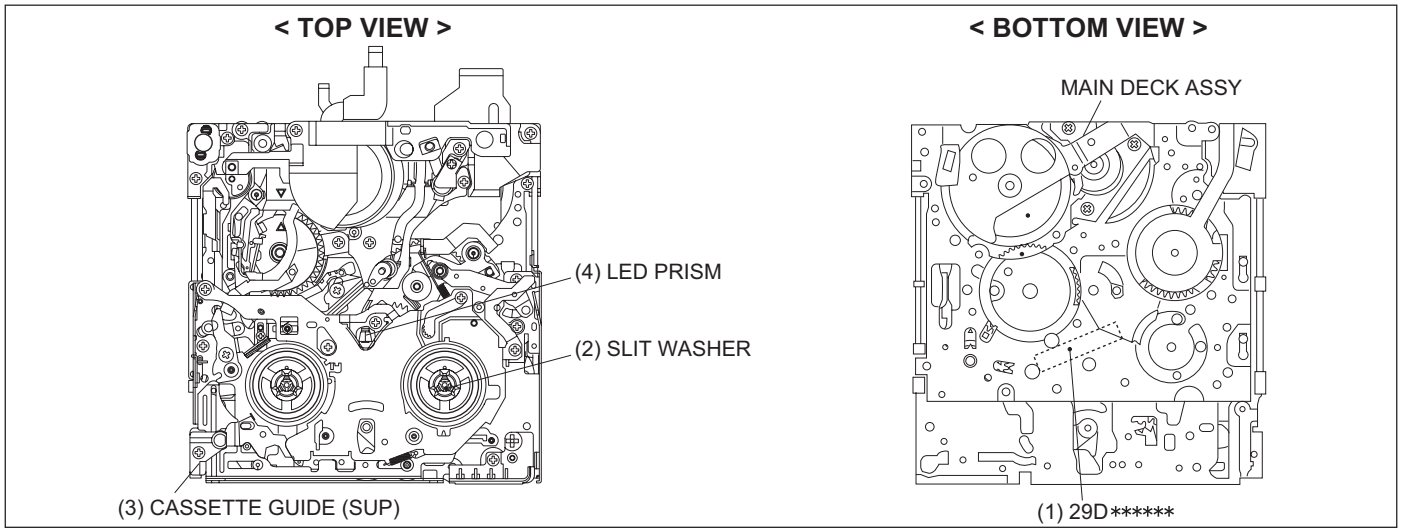
Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB
Grease (HANARL)	RX-410R	CC

NOTE1: The section marked in AA, BB and CC indicate lubrication and greasing areas.
NOTE2: Mark ★ is not contained in 900A.

Fig.3-1-1

3.1.1 DVC MECHANISM ASSEMBLY PART LIST

- Since parts numbers described here are the numbers at the time of manualissue, they are subject to change without notice. Therefore, be sure to see a parts list in the service manual of each model as for parts numbers.
- To distinguish the mechanism assembly with the symbol number of 400-499 from the mechanism assembly with the symbol number of 900-999, see the following procedures.
  (1) See the numbers on the backside of the MAIN DECK ASSY.
  For example, "29D******" is printed on the backside of the mechanism assembly with the symbol number of 900-999 (YMA0029D in this example). See the first three characters and numbers from the left.
  (2) See the color of the SLIT WASHER on the REEL DISK (TU).
  A red slit washer is used (the same color as a slit washer of CASSETTE GUIDE (SUP)) in the mechanism assembly with the symbol number of 400-499. A black slit washer is used in the mechanism assembly with the symbol number of 900-999.
  However, the black slit washer may be changed into a red one for the purpose of parts unification.
  (3) See the color of the CASSETTE GUIDE(SUP).
  Light-brown CASSETTE GUIDE(SUP) is used in the mechanism assembly with the symbol number of 400-499.
  Black CASSETTE GUIDE(SUP) is used in the mechanism assembly with the symbol number of 900-999.
  (4) See the shape of the LED PRISM. LED PRISM consists of only resin in the mechanism assembly with the symbol number of 400-499.
  Upper part of the LED PRISM is covered with black metal in the mechanism assembly with the symbol number of 900-999.



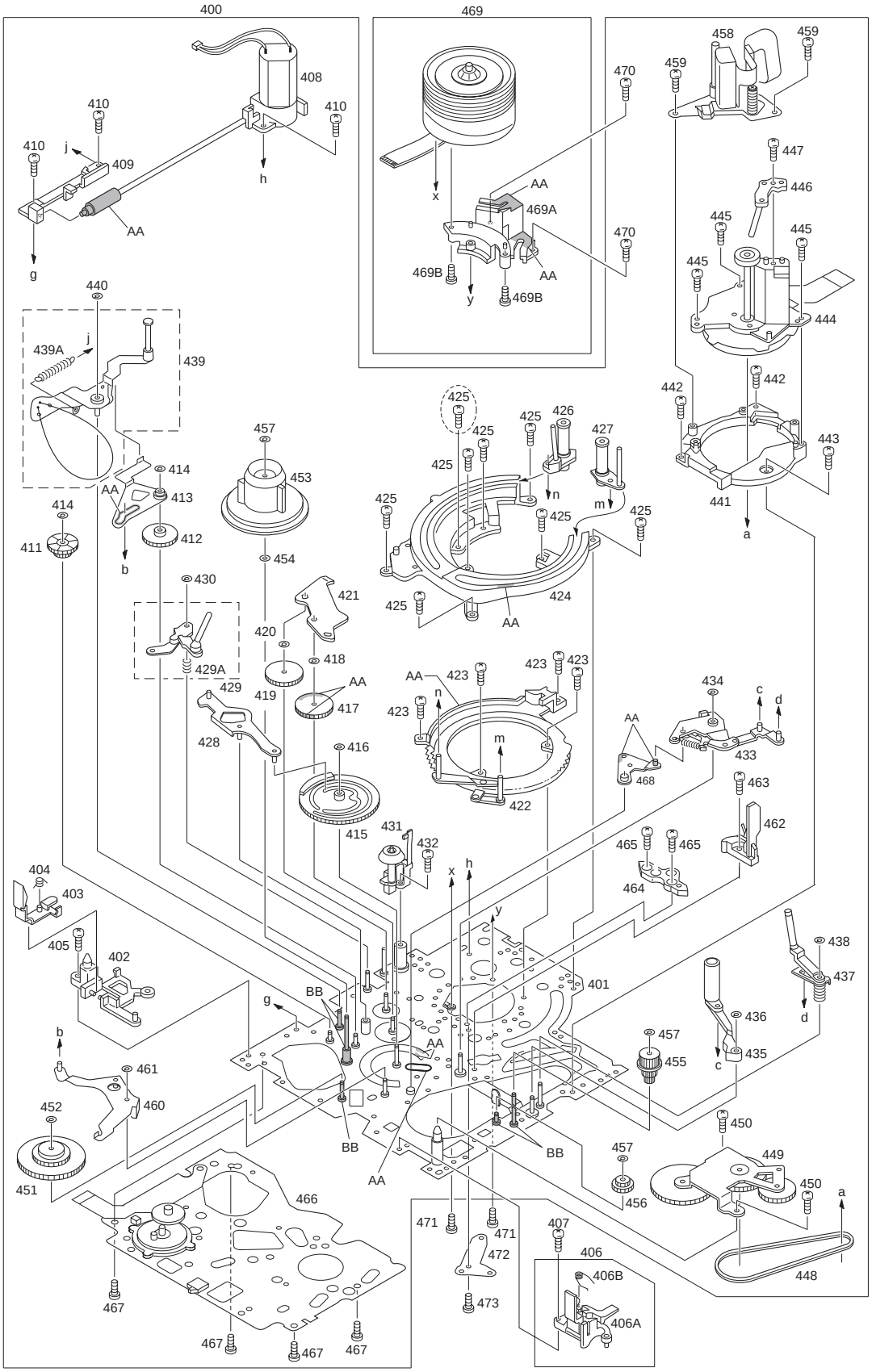
Part Name	Symbol No.	Part No.	Part No.	Part No.	Symbol No.	Part No.	Patr No.
MECHA(A) ASSY	400	YMA0029C	YMA0029M	YMA0029L	900	YMA0029H	YMA0029E
MECHA(A)ASSY	-	-	-	-	900A	YMA0029D	-
CASSETTE HOUSING ASSY	401	LY31543-002E*	LY31543-002H	←	901	LY32870-001G*	LY32870-001J
MINI SCREW,X3	402	YQ43893-8	←	←	902	←	←
UPPER BASE ASSY	403	LY31542-001J	←	←	903	LYH30420-001A	←
MINI SCREW	404	YQ43893*	QYSPSPU1425M	←	904	←	←
DRUM ASSY	405	**	**	**	905	**	**
DAMP.SCREW ASSY,X2	406	LY42820-001A	←	←	906	←	←
DAMP.SCREW ASSY	407	LY42820-002A	←	←	907	←	←
REEL DISK ASSY (SUP)	408	LY31538-001B*	LY31538-001F	←	908	←	←
REEL DISK ASSY (TU)	409	LY31538-002B*	LY31538-002H	LY31538-002G	909	LY31538-002H	←
SLIT WASHER,X2 or X1	410	YQ44246,(x2)	←,(x2)	←,(x2)	910	←*,(x1)	←,(x2)
REEL COVER ASSY	411	LY10217-001A*	LY10217-001F	←	911	LY10372-001D	←
MINI SCREW	412	LY42120-001A*	LY42120-002A	←	912	←	←
MINI SCREW,X2	413	LY41945-003A	←	←	913	←	←
SLIT WASHER	414	YQ44246	←	←	914	←	←
TENSION ARM ASSY	415	LY42025-001C	←	←	915	LY43725-001D	←
SLANT POLE ARM ASSY	416	LY31535-001F	←	←	916	LYH40269-001A	←
TU ARM ASSY	417	LY42031-001G*	LY42031-001K	←	917	LY43731-001F	←
SWING ARM ASSY	418	LY31531-001D	←	←	918	←	←
MINI SCREW	419	YQ43893	←	←	919	←	←
SLIDE DECK FINAL ASSY	420	LY20530-003B*	LY20530-003E	←	920	LYH30424-001A	←

Part Name	Symbol No.	Part No.	Part No.	Part No.	Symbol No.	Part No.	Patr No.
MINI SCREW,X2	421	YQ43893	←	←	921	←	←
MINI SCREW	422	LY43023-001A	←	←	922	←	←
PAD ARM ASSY	424	LY31533-001E	←	←	924	LYH30419-001A	←
SLIT WASHER	425	YQ44246	←	←	925	←	←
TU BRAKE ASSY	428	LY42016-001B	←	←	928	LYH40270-001A	←
SLIT WASHER	429	YQ44246	←	←	929	←	←
TENSION CONTROL LEVER ASSY	430	LY41959-001B	←	←	930	LY43684-001A	←
CENTER GEAR	431	LY31525-001B	←	←	931	LY32861-001A	←
PINCH ROLLER ARM FINAL ASSY	432	LY31516-001E	←	LY31516-001F	932	←	←
SLIT WASHER	433	YQ44246	←	←	933	←	←
TENSION CONTROL PLATE ASSY	434	LY41956-001C	←	←	934	LY43681-001A	←
BRAKE CONTROL LEVER ASSY	435	LY41962-001B*	LY41962-001C	←	935	LY43687-001A	←
MOTOR BRACKET ASSY	436	LY20525-002C	←	←	936	LYH30421-001A	←
LOADING MOTOR	436A	QAR0138-001	←	←	936A	←	←
TAPPING SCREW,x2	436B	LY41940-001A	←	←	936B	←	←
MINI SCREW,x3	437	YQ43893	←	←	937	←	←
GUIDE RAIL ASSY	438	LY20528-001R*	LY20528-001U	←	938	LYH30422-001A	←
MINI SCREW	439	YQ43893	←	←	939	←	←
SLIT WASHER,X2	440	YQ44246	←	←	940	←	←
SLIDE LEVER2 ASSY	441	LY31498-001C	←	LY31498-001D	941	LY32843-001A	←
LOADING PLATE ASSY	442	LY41965-001A	←	←	942	LY43690-001A	←
SLIT WASHER	443	YQ44246	←	←	943	←	←
EJECT LEVER	444	LY31522-001B	←	←	944	LY32858-001A	←
SLIT WASHER	445	YQ44246	←	←	945	←	←
BASE R ASSY	446	LY41929-001E*	LY41929-001F	←	946	LYH40271-001A	←
MINI SCREW	447	YQ43893	←	←	947	←	←
MINI SCREW	448	LY41945-001B	←	←	948	←	←
MODE GEAR	449	LY41930-001A	←	←	949	LY43665-001A	←
ROTARY ENCODER	450	QSW0876-003	←	←	950	←	←
MINI SCREW,X2	451	YQ43893	←	←	951	←	←
GEAR COVER ASSY	452	LY31524-001A	←	←	952	LY32860-001A	←
MINI SCREW,X2	453	YQ43893	←	←	953	←	←
MINI SCREW	454	YQ43893-4	←	←	954	←	←
MAIN CAM ASSY	455	LY41948-001C	←	←	955	LY43676-001A	←
SLIDE ARM ASSY	456	LY41941-001B	←	←	956	←	←
CONNECT GEAR 2	457	LY41951-001B	←	←	957	LY43678-001A	←
SUB CAM ASSY	458	LY41954-001B	←	LY41954-001E	958	←	←
MINI SCREW	459	LY42120-001A	←	←	959	←	←
CONTROL ARM ASSY	460	LY41952-001A	←	←	960	LY43692-001A	←
REEL GEAR 1	461	LY31523-001B	←	←	961	LY32859-001A	←
DRUM BASE ASSY	462	LY31508-002A*	LY31508-002B	LY33372-001A	962	LY31508-002B	←
SCREW,X3	463	QYSPSPU1425M	←	←	963	←	←
CAPSTAN MOTOR	464	QAR0142-001	←	←	964	←	←
MINI SCREW	465	YQ43893	←	←	965	←	←
MAIN DECK ASSY	466	LY10210-001D*	LY10210-001G	←	966	LY10367-001D*	LY10367-001E
SLIT WASHER	476	YQ44246	←	←	976	←	←
SLIT WASHER	477	-	-	-	977	YQ44246-6	-
WASHER	478	-	-	-	978	LY42047-005A	←
SPACER	479	-*	LY43987-001B	←	979	←	←

NOTE:

MARK ← is same as left.
MARK - is not used.
MARK * reference model was also changed.
MARK ** shows different parts number, depending on models.

3.2 VHS-C MECHANISM ASSEMBLY



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

Fig.3-2-1

3.2.1 VHS-C MECHANISM ASSEMBLY PARTS LIST

- Since parts numbers described here are the numbers at the time of manualissue, they are subject to change without notice. Therefore, be sure to see a parts list in the service manual of each model as for parts numbers.

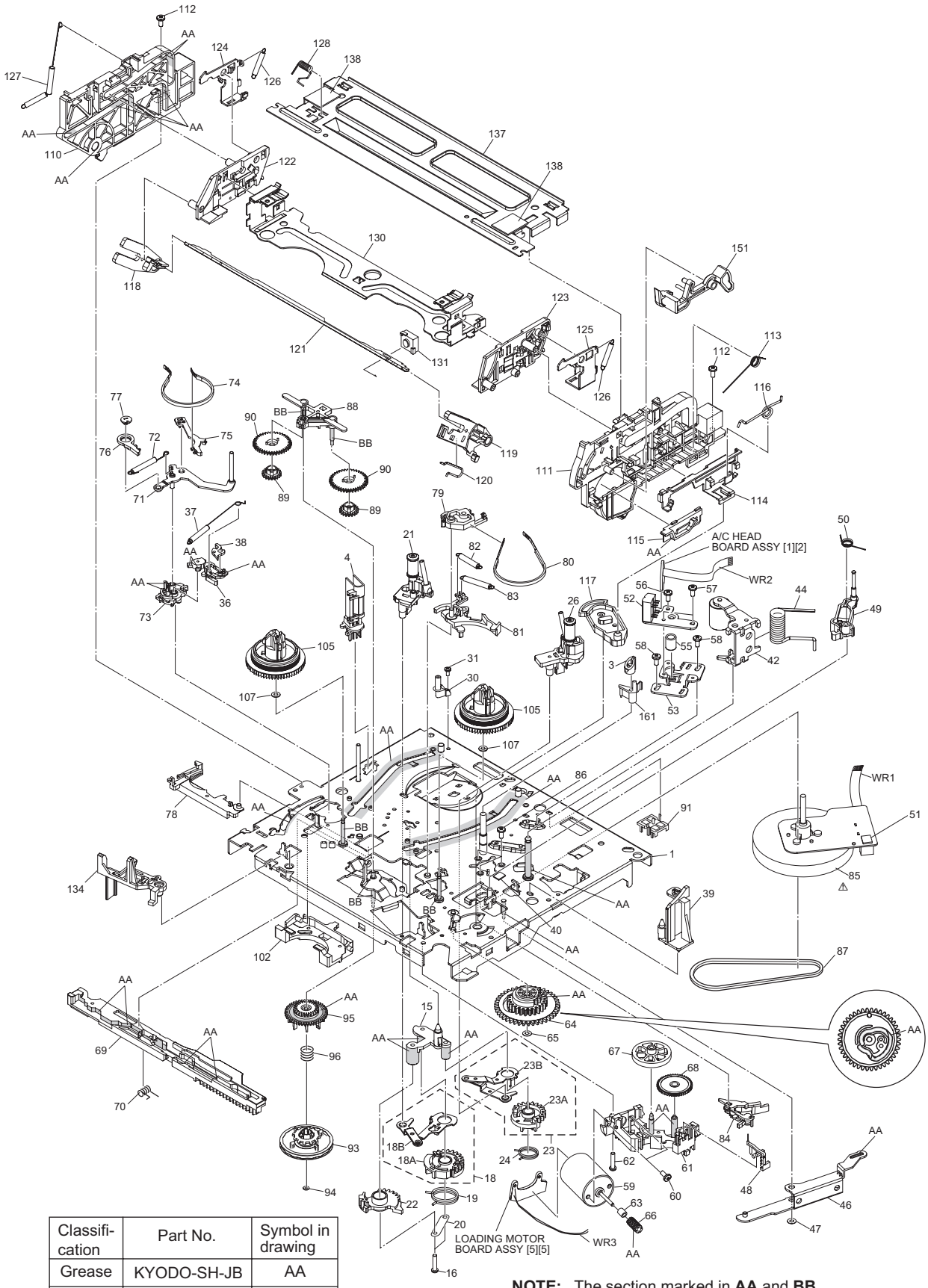
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.	Part No.
MECHA(B) ASSY	400	YMA0033A-E	YMA0042A-E	YMA0034A-E	YMA0036A-E	YMA0040A-E
MAIN DECK ASSY	401	LY20612-001B	←	←	←	←
CASSETTE GUIDE (LEFT)	402	LY31817-001A	←	←	←	←
SW LEVER (LEFT)	403	LY31815-001A	←	←	←	←
TORSION SPRING	404	LY42581-001A	←	←	←	←
SCREW	405	LY42722-001A	←	←	←	←
CASSETTE GUIDE ASSY(RIGHT)	406	-	-	YQ44339A-7	←	←
SW.LEVER(RIGHT)	406A	-	-	YQ32162-1-3	←	←
TORSION SPRING	406B	-	-	YQ44340-1-4	←	←
SCREW	407	-	-	LY42819-001A	←	←
MOTOR BRACKET ASSY	408	LY31826-001A	←	←	←	←
WORM BRACKET	409	YQ20793	LY20951-001A	YQ20793	←	LY20951-001A
SCREW,X3	410	LY42722-001A	←	←	←	←
WHEEL GEAR	411	LY31925-001A	←	←	←	←
MIDDLE GEAR	412	LY42730-001A	←	←	←	←
CANCEL LEVER ASSY	413	LY42521-001A	←	←	←	←
SLIT WASHER,X2	414	LY42754-003A	←	←	←	←
CONTROL CAM	415	YQ20827-2-1	←	←	←	←
SLIT WASHER	416	PQM30017-25	←	←	←	←
LOADING GEAR(T)ASSY	417	LY42733-001A	←	←	←	←
SLIT WASHER	418	LY42754-003A	←	←	←	←
LOADING GEAR(S)ASSY	419	LY42732-001A	←	←	←	←
SLIT WASHER	420	LY42754-003A	←	←	←	←
COVER PLATE	421	LY42403-001A	←	←	←	←
LOADING RING ASSY	422	LY42452-001A	←	←	←	←
SCREW,X4	423	LY42728-001A	←	←	←	←
GUIDE RAIL	424	LY10239-001A	←	←	←	←
SCREW,X8 or X7	425	LY42728-001A,(X8)	←,(X7)	←,(X8)	←,(X8)	←,(X7)
POLE BASE(S)ASSY	426	LY30161-001B	←	←	←	←
POLE BASE(T)ASSY	427	LY30162-002A	←	←	←	←
DRIVE LEVER ASSY	428	LY42523-001A	←	←	←	←
SLANT ARM ASSY	429	LY42545-001B	LY44000-001B	LY42545-001B	←	LY44000-001B
TORSION SPRING(S)	429A	LY42547-001A	LY43992-001A	LY42547-001A	←	LY43992-001A
SLIT WASHER	430	LY42754-003A	←	←	←	←
ROLLER BASE ASSY	431	LY42739-003A	←	←	←	←
SCREW	432	LY42722-001A	←	←	←	←
LINK ARM ASSY	433	LY42494-001A	←	←	←	←
SLIT WASHER	434	PQM30017-25	←	←	←	←
PINCH ROLLER ARM ASSY	435	LY40018-002A	←	←	LY40018-005A	←
SLIT WASHER	436	PQM30017-25	←	←	←	←
TAKE UP GUIDE ARM ASSY	437	LY42541-001B	←	←	←	←
SLIT WASHER	438	LY42754-003A	←	←	←	←
TENSION ARM ASSY	439	LY42571-001A	←	←	←	←
TENSION SPRING	439A	LY42669-001A	←	←	←	←
SLIT WASHER	440	LY42754-003A	←	←	←	←
MOTOR BASE	441	YQ20797-1-5	←	←	←	←
SCREW,X2	442	LY42722-001A	←	←	←	←
SCREW	443	YQ44460	←	←	←	←
CAPSTAN MOTOR	444	QAR0212-001	QAR0212-002	QAR0212-001	QAR0212-002	←
TAPPING SCREW,X3	445	YQ44304	←	←	←	←
SLANT POLE BASE ASSY	446	LY42731-001A	←	←	←	←
TAPPING SCREW	447	YQ44304	←	←	←	←
TIMING BELT	448	YQ43710-2	←	←	←	←
CENTER PULLEY UNIT	449	LY42678-001A	←	←	←	LY42678-003A

Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.	Part No.
SCREW,X2	450	LY42722-002A	←	←	←	←
SUPPLY CLUTCH ASSY	451	LY42670-001A	←	←	←	←
SLIT WASHER	452	LY42754-003A	←	←	←	←
REEL DISC	453	YQ31861-1-7	←	←	←	←
WASHER	454	LY42755-001A	←	←	←	←
TAKE UP GEAR	455	LY31924-001A	←	←	←	←
BRAKE SUB GEAR	456	LY42738-001A	←	←	←	←
SLIT WASHER,X3	457	LY42754-003A	←	←	←	←
A/C HEAD UNIT	458	LY42544-001B	LY42544-002A	LY42544-001B	←	LY42544-002A
SCREW,X2	459	SPSN1750Z	←	←	←	←
EJECT LEVER ASSY	460	LY42517-001A	←	←	←	←
SLIT WASHER	461	LY42754-003A	←	←	←	←
LED GUIDE	462	YQ31833-1-1	←	←	←	←
SCREW	463	LY42722-001A	←	←	←	←
DRUM SPACER	464	LY42729-001A	←	←	←	←
SCREW,X2	465	LY42722-001A	←	←	←	←
ROTARY ENCODER	466	QSW0888-001	←	QSW0888-002	←	←
SCREW,X4	467	LY42722-002A	←	←	←	←
LINK LEVER	468	LY31814-001A	←	←	←	←
DRUM FINAL ASSY	469	**	**	**	**	**
CATCHER	469A	YDM1003-1-5	←	←	←	←
SCREW,X2	469B	QYSPSPU1735M	←	←	←	←
SCREW,X2	470	LY42722-001A	←	←	←	←
SCREW,X2	471	SPSH1740Z	←	←	←	←
BRUSH	472	LY43542-001A	←	←	←	←
SCREW	473	LY42722-003A	←	←	←	←
CASSETTE HOUSING FINAL ASSY	*155/481	LY31808-001C	LY31808-002C	LY31808-001C	LY31808-001D	LY31808-002C
SCREW,X4	*156/482	LY42722-003A	←	←	←	←
BRACKET(MECHA)	*161/484	LY32326-001A	←	←	←	←
SCREW,X2	*162/485	LY42722-003A	←	←	←	←
SIDE BRACKET L	*164/487	LY31807-001A	←	←	←	←
SCREW	*165/488	LY42722-003A	←	←	←	←

NOTE:

MARK ← is same as left.
MARK - is not used.
MARK * are shown in the parts list of FINAL ASSY of service manual of each model.
MARK ** shows different parts number, depending on models.

3.3 VHS MECHANISM ASSEMBLY



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

Fig.3-3-1

3.3.1 VHS MECHANISM ASSEMBLY PARTS LIST

- Since parts numbers described here are the numbers at the time of manualissue, they are subject to change without notice. Therefore, be sure to see a parts list in the service manual of each model as for parts numbers.

System		VHS		S-VHS	
**Job No.		V15D Series	V16D Series	V15S Series	V16S Series
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.
MAIN DECK ASSY	1	LP21039-001N	LP21039-001S	LP21039-001R	LP21039-001S
GUIDE POLE CAP	3	LP40097-002D	←	←	←
FULL ERASE HEAD	4	QAH0082-001	←	←	←
LOAD.GEAR BASE	15	LP30958-001B	←	←	←
SCREW,X2	16	QYTPST2620Z	←	←	←
LORD.GEAR(SUPPLY) ASSY	18	LP40798-001A	←	←	←
LORD.GEAR(SUPPLY)	18A	LP21040-001A	←	←	←
LORD.ARM(SUPPLY) ASSY	18B	LP40799-001A	←	←	←
TORSION SPRING(SUPPLY)	19	LP40837-001A	←	←	←
FIXING PLATE	20	LP40903-001A	←	←	←
POLE BASE ASSY(SUPPLY)	21	LP40806-001D	←	←	←
LOAD GEAR	22	LP30959-002A	←	←	←
LORD. GEAR(TAKE UP) ASSY	23	LP40802-001B	LP40802-001C	LP40802-001B	LP40802-001C
LORD. GEAR(TAKE UP)	23A	LP21041-001B	LP21041-001C	LP21041-001B	LP21041-001C
LORD.ARM(TAKE UP) ASSY	23B	LP40803-001A	←	←	←
TORSION SPRING(TAKE UP)	24	LP40838-001A	←	←	←
POLE BASE ASSY(TAKE UP)	26	LP40808-001F	LP40808-001E	←	←
ARM BASE	30	-	←	LP31020-004A	←
SCREW	31	-	←	QYTDST2606Z	-
TU LEVER	36	LP21055-001E	←	←	←
TENSION SPRING	37	LP40943-001A	←	←	←
T-UP HEAD	38	LP40859-001D	←	←	←
LID GUIDE	39	LP30961-001C	←	←	←
SPACER	40	LP30002-0B7A	←	←	-
PINCH ROLLER ARM ASSY	42	LP40810-001A	←	←	←
TORSION SPRING	44	LP40840-001C	LP40840-001D	←	←
PRESS LEVER	46	LP30963-001B	←	←	←
SLIT WASHER	47	PQM30017-24	←	←	←
S-SWITCH	48	-	←	LP40930-002E	←
GIDE ARM ASSY	49	LP40813-001D	←	←	←
TORSION SPRING	50	LP40841-001A	←	←	←
SPACER	51	LP30002-090A	←	←	-
A/C HEAD	52	QAH0081-001	←	←	←
HEAD BASE	53	LP30965-001A	←	←	←
COMPRESSION SPRING	55	LP40842-001A	LP40842-001D	LP40842-001A	LP40842-001D
SCREWX1 A/C HEAD	*56	QYTDST2006M	←	←	←
A/C HEAD SCREW,X2	*57	LP41036-001A	←	←	←
SCREW,X2 A/C HEAD	*58	QYTDST2606Z	←	←	←
LOADING MOTOR	59	QAR0023-001	←	←	←
SCREW,X2	60	QYTPSP3003Z	←	←	←
MOTOR BRACKET	61	LP21056-002F	LP21056-002G	←	←
TAP SCREW	62	QYTPST2620Z	←	←	←
WORM BEARING	63	LP40814-001B	←	←	←
CONTROL CAM	64	LP21044-001D	←	←	←
SLIT WASHER	65	PQM30017-24	←	←	←
WORM GEAR	66	LP40815-001A	←	←	←
HELICAL GEAR	67	LP40816-001B	←	←	←
CONNECT GEAR	68	LP40817-001A	←	←	←

System		VHS		S-VHS	
**Job No.		V15D Series	V16D Series	V15S Series	V16S Series
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.
CONTROL PLATE	69	LP10400-001H	←	←	LP10400-001J
TORTION SPRING	70	LP40843-001A	←	←	←
TENSION ARM ASSY	71	LP40818-001B	←	←	←
TENSION SPRING	72	LP40844-001C	LP40844-001E	LP40844-001D	LP40844-001E
TENSION ARM BASE	73	LP21045-001D	←	←	←
TENSION BAND ASSY	74	LP40821-001A	←	←	←
BAND HOLDER-1	75	LP30967-001B	←	←	←
BAND HOLDER-2	76	LP30968-001C	←	←	←
ADJUST PIN	77	LP40822-002B	←	←	←
TENSION ARM LEVER	78	LP31000-005E	←	←	←
MAIN BRAKE(TAKE UP)	79	LP21046-001C	←	←	←
BAND BRAKE ASSY	80	LP40824-001A	←	←	←
BRAKE LEVER	81	LP30969-002A	LP30969-002B	LP30969-002A	LP30969-002B
TENSION SPRING	82	LP30003-033B	←	←	←
TENSION SPRING	83	LP30003-035B	←	←	←
CAPSTAN BRAKE ASSY	84	LP40825-001B	←	←	←
CAPSTAN MOTOR	85	QAR0204-002	←	←	←
SCREW,X3 CAPSTAN MOTOR	86	QYTPSG2606M	QYTPSG2606Z	QYTPSG2606M	QYTPSG2606Z
BELTCAPSTAN MOTOR	87	LP30005-010A	←	←	←
IDLER ARM	88	LP30970-001A	←	←	←
IDLER GEAR 1,X2	89	LP40828-004A	←	←	←
IDLER GEAR 2,X2	90	LP40829-001B	LP40829-002A	LP40829-001B	LP40829-002A
WIRE HOLDER	91	LP31014-001A	←	←	←
CLUTCH UNIT	93	LP40934-001B	←	←	←
SLIT WASHER	94	PQM30017-47	←	←	←
DIRECT GEAR	95	LP30973-001A	←	←	←
COMPRESS. SPRING	96	LP40939-001A	←	←	←
CHANGE LEVER	102	LP30974-001B	←	←	←
REEL DISK,X2	105	LP21049-001A	←	←	←
SPACER,X2	107	LP30017-004A	←	←	←
SIDE FRAME(L)	110	LP10401-001F	LP10401-001H	LP10401-001F	LP10401-001H
SIDE FRAME(R)	111	LP10402-001F	LP10402-001K	LP10402-001G	LP10402-001K
SCREW,X2	112	QYTDST2606Z	←	←	←
TORSION SPRING	113	LP40917-001C	LP40917-001D	←	←
SIDE PLATE	114	LP30976-001D	LP30976-001E	←	←
LIMIT PLATE	115	LP30977-002D	←	←	←
LIMIT SPRING	116	LP40846-001C	←	←	←
DRIVE LEVER	117	LP31100-001B	←	←	←
DRIVE ARM(L)	118	LP30978-001B	←	←	←
DRIVE ARM(R)	119	LP30979-001H	LP30979-001N	LP30979-001H	LP30979-001N
TORSION SPRING	120	LP40847-001B	←	←	←
CONNECT PLATE	121	LP30980-001A	LP30980-001E	LP30980-001B	LP30980-001E
SIDE HOLDER(L)	122	LP10403-001C	←	←	←
SIDE HOLDER(R)	123	LP10404-001D	LP10404-001E	←	←
LOCK LEVER(L)	124	LP30983-001A	LP30983-001B	LP30983-001A	LP30983-001B
LOCK LEVER(R)	125	LP30984-001A	LP30984-001B	LP30984-001A	LP30984-001B
TENSION SPRING,X2	126	LP40924-001C	LP40924-001D	←	←
EARTH SPRING(1)	127	LP40856-001A	←	LP40856-001B	LP40972-001A
EARTH SPRING(2)	128	LP40857-001B	←	←	←
C.HOLDER ASSY	130	LP30981-001E	LP30981-001G	LP30981-001F	LP30981-001G
C.H STOPPER	131	LP31135-001A	-	LP31135-001A	-

System		VHS		S-VHS	
**Job No.		V15D Series	V16D Series	V15S Series	V16S Series
Part Name	Symbol No.	Part No.	Part No.	Part No.	Part No.
R.SAFETY LEVER	134	LP21051-002C	←	←	←
TOP FRAME	137	LP21052-001F	LP21052-001J	LP21052-001H	LP21052-001J
SPACER	138	LP30002-0A7A	-	LP30002-0A7A	-
DOOR OPENER	151	LP30985-001G	←	←	←
TAPE GUIDE	161	-	LP40993-001A	-	LP40993-001A
E-CARD WIRE DRUM.M	WR1	WJT0059-001C	WJT0059-001E	WJT0059-001D	WJT0059-001E
E-CARD WIRE AC HEAD CN2001	WR2	WJT0067-001B	←	←	←
E-FL/RB WIRE LOADING MOTOR	WR3	WJS0022-001A	←	←	←
MEMO	-	PMD0035B-C	PMD0040A-C	PMD0036B-C /PMD0039A-C	PMD0037A-C /PMD0041A-C

NOTE:

MARK ← is same as left.
MARK - is not used.
MARK * shows that Symbol No. and Parts No. may sometimes be different from those in each manual. See the table below for final Symbol No. and Parts No.
MARK ** is Job No.
To identify a model, see the Job No. of the model.
Job No. is shown just above the service manual number at the lower right of the service manual of each model.

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

Note: The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

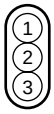
2. Indications of control voltage

AUX : Active at high.

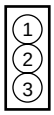
$\overline{\text{AUX}}$ or AUX(L) : Active at low.

3. Interpreting Connector indications

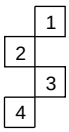
Removable connector



Wire soldered directly on board



Non-removable Board connector



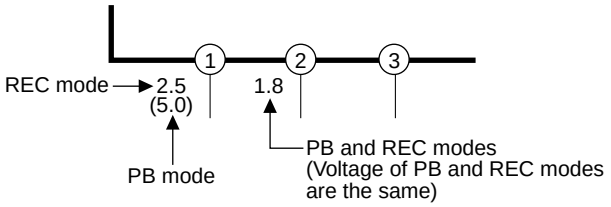
Board to Board

Connected pattern on board
The arrows indicate signal path

Note: For the destination of each signal and further line connections that are cut off from the diagram, refer to "BOARD INTERCONNECTIONS"

4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

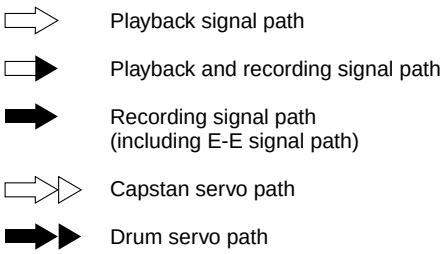


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

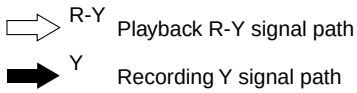
5. Signal path Symbols

The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.

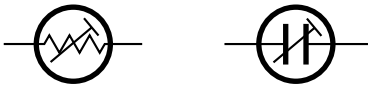


(Example)



6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

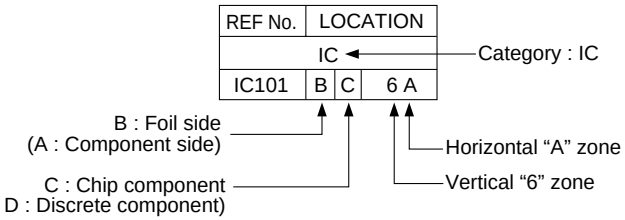
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

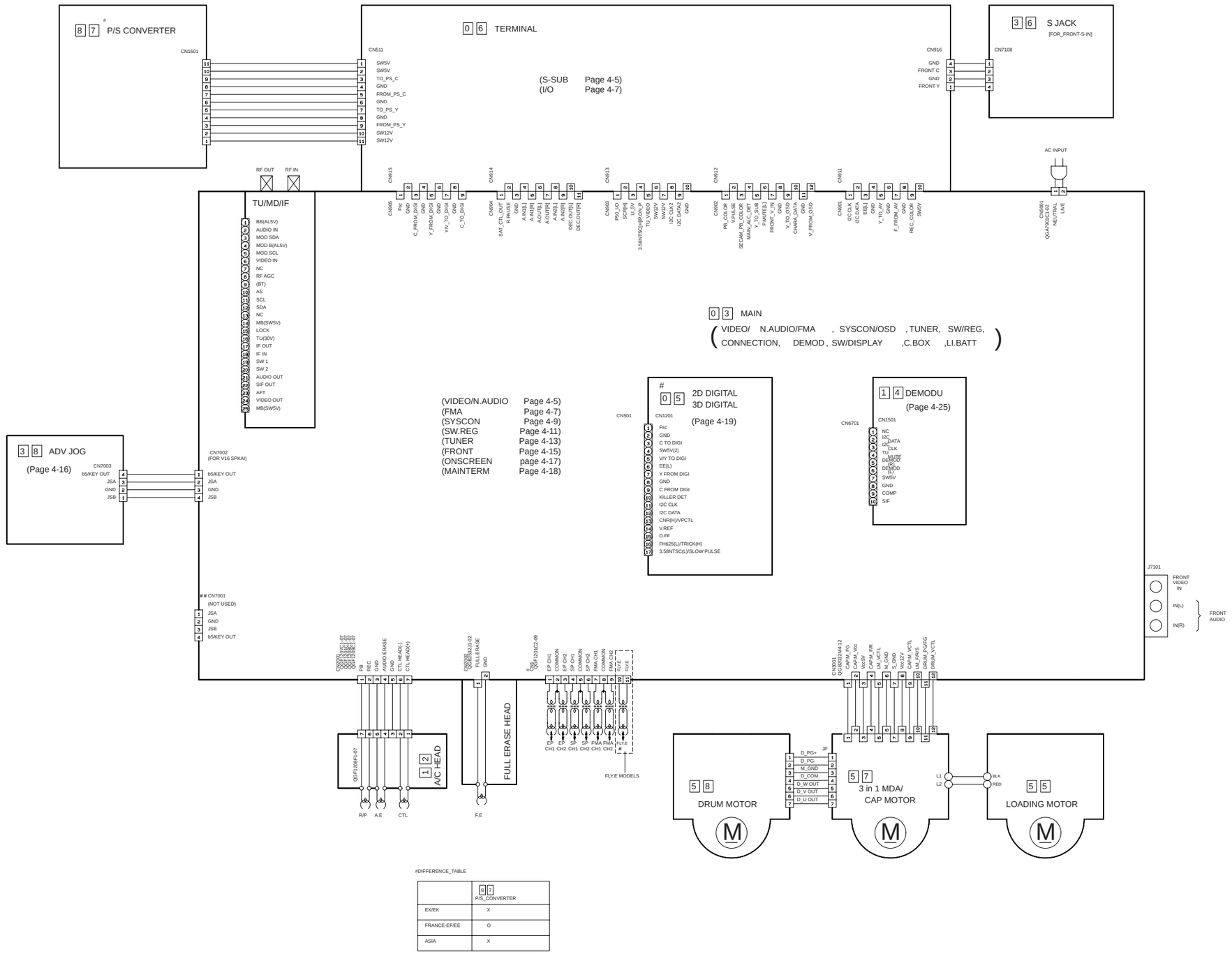
2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS



#DIFFERENCE_TABLE

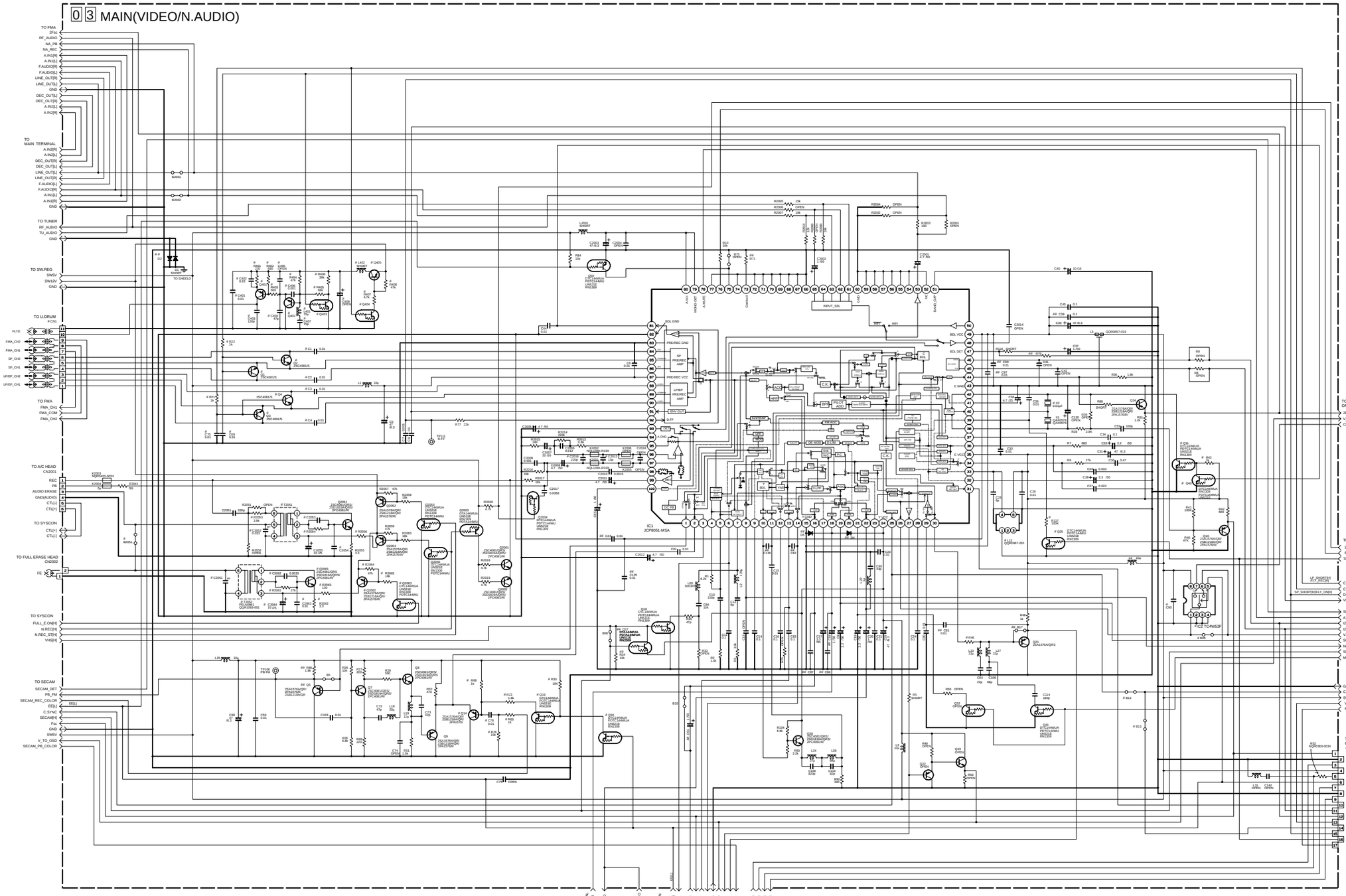
	8 7 P/S_CONVERTER
EX/EK	X
FRANCE-EF/EE	O
ASIA	X

[SECAM->PAL_CONVERTER]

NO	NAME
96	
93	
92	
91	
87	P/S CONVERTER
76	
58	DRUM MOTOR
57	3in1 MDA/CAP.MOTOR
55	LOADING MOTOR
38	ADV.JOG
36	S JACK
14	DEMOD
12	A/C HEAD
09	
05	2D/3D DIGITAL
03	MAIN

p10505001a_rev0

4.2 MAIN(VIDEO/N.AUDIO) SCHEMATIC DIAGRAM



#DEFFERENCE TABLE

SP LINEUP	CN1	FLYERASE	H.SHORT	PRE.IN	PAL_EP TRICK		C.TRAP	3D			for_MS	AUDIO.DUBBING								
		R401-R408 Q401-Q405 C401-C407 L401,L402 C409	Q1-Q4 "C99,C170" "R21,R22"	C1-C4	R43 Q11 Q40	R117 Q25	R46	B12	B13	X2 0.01uF	"Q14,Q18,Q19" "R23,R30R60" "R68,R75,C79"	Function	T2051	B2051	R2053	R2054	R2056	C2053	C2054	C2061	Q2061-Q2063 T2052 IC2052 R2065-R2065 C2062-C2064
S8960EX,S8965EK(S25)	1-11	○	×	0.1	×	○	470	×	○	○	×	○	PEILN0860	×	3.9k	15k	100	0.0033	0.01	0.033	○
S8960AG(S25)	1-11	○	×	0.1	×	○	470	×	○	○	×	○	PEILN0860	×	3.9k	15k	100	0.0033	0.01	0.033	○
S7960EX,S7965EK(S2)	1-9	×	○	0.01	×	○	470	×	○	○	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S7965EF(S2)	1-9	×	○	0.01	×	○	470	×	○	○	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S6960EX(S1)	1-9	×	○	0.01	○	×	220	○	×	×	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S6965EF(S1)	1-9	×	○	0.01	○	×	220	○	×	×	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×
S6960AA(S1)	1-9	×	○	0.01	×	×	220	○	×	×	×	×	PEILN0832	○	3.9k	12k	82	0.0047	0.022	0.082	×

○ : Used
× : Not used

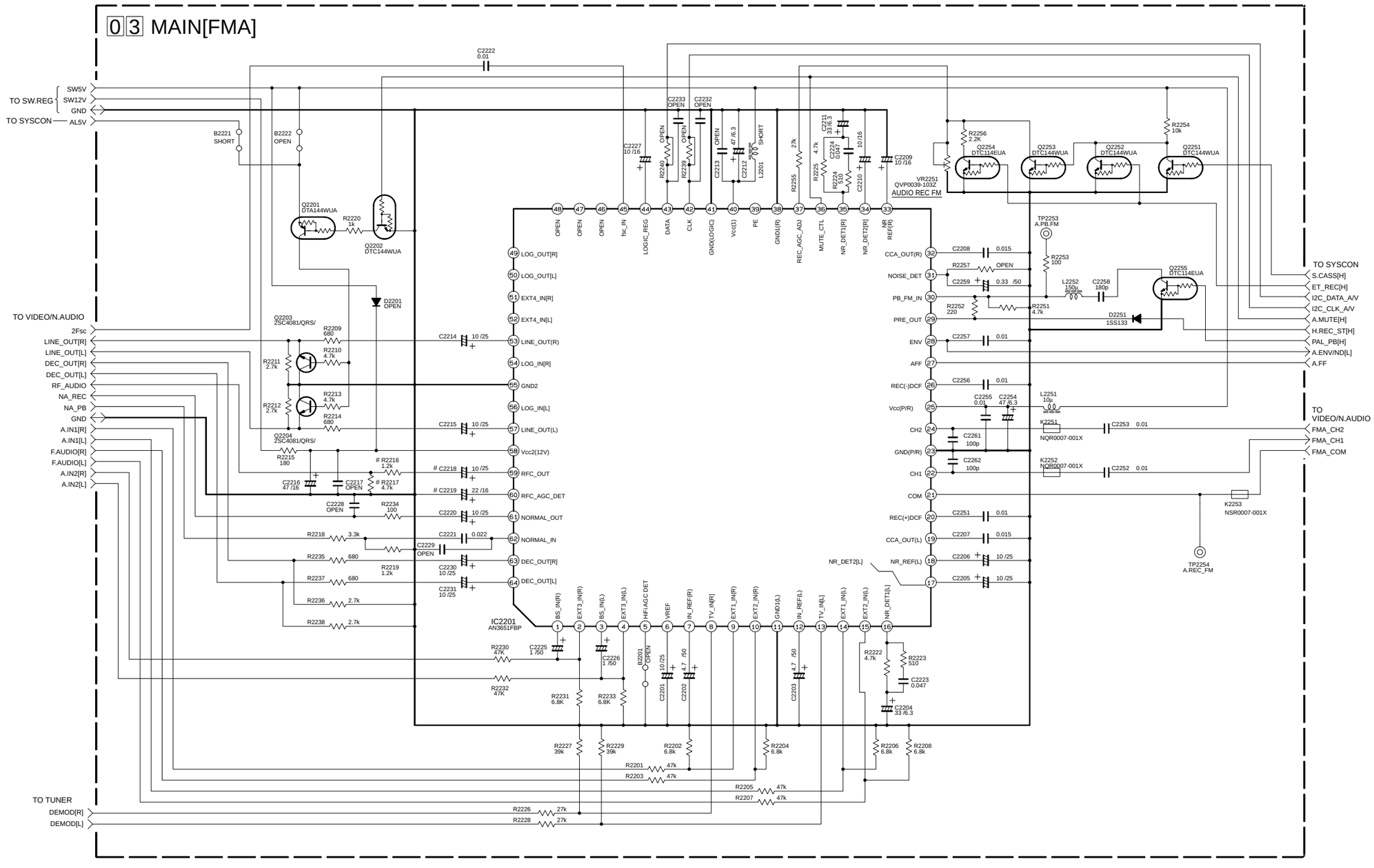
MARKS ARE NOT MOUNTED ALL MODELS

TITLE REC	B65	IC2 C90
YES	×	○
NO	○	×

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR
ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/
ALL NPN TYPE DIGITAL TRANSISTORS ARE DTC144WUA or UNS31E or RN1309 or PDTC144WU
ALL PNP TYPE DIGITAL TRANSISTORS ARE DTA144WUA or UNS11E or RN2309 or PDTA144WU

p10439001a_rev1.1

4.3 MAIN(FMA) SCHEMATIC DIAGRAM



#DIFFERENCE TABLE 1 ○ : Used × : Not used

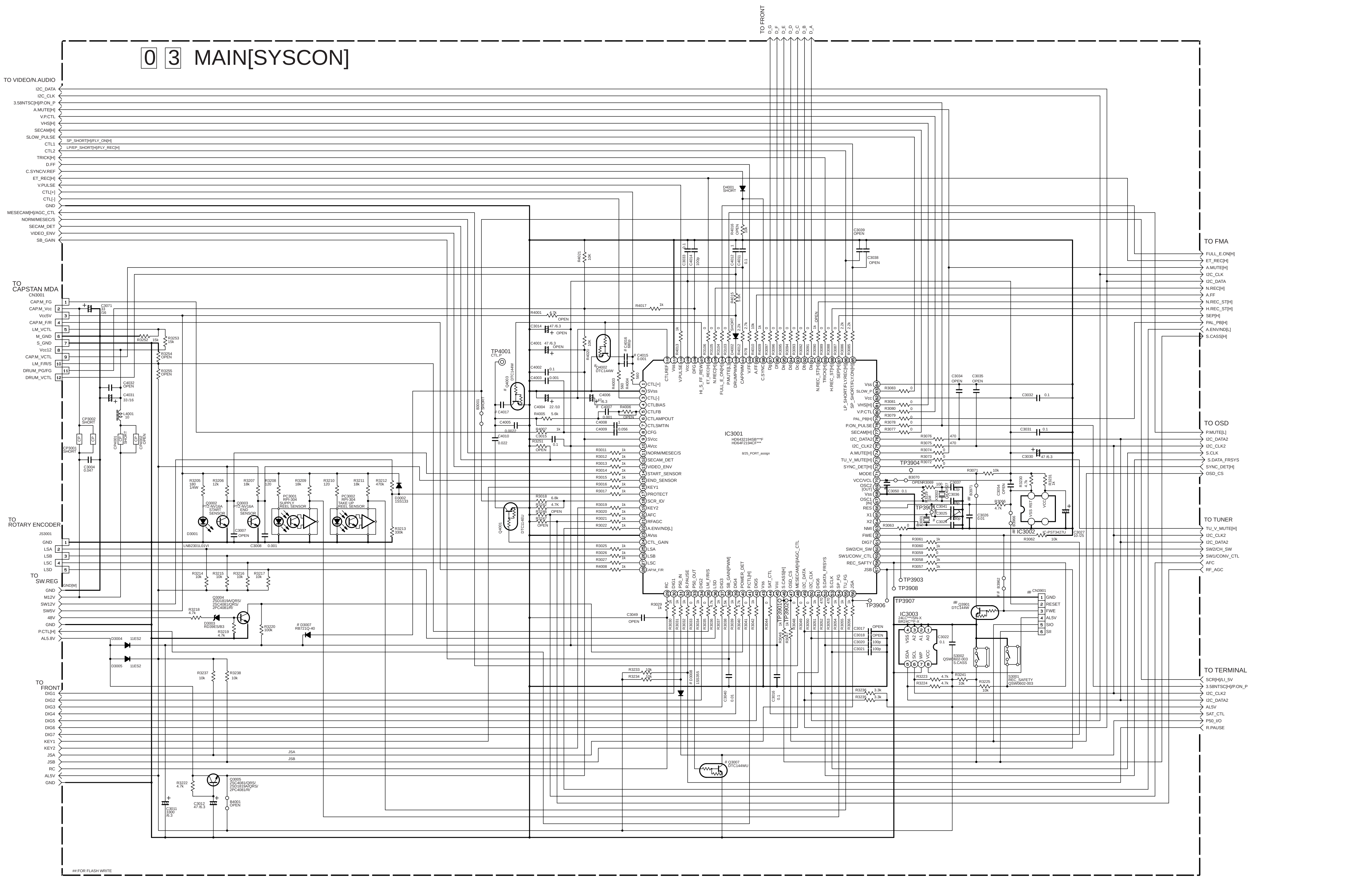
RF OUT	C2218	C2219	R2216	R2217
YES		○		
NO		×		

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20281001a_rev0.1

4.4 MAIN(SYSCON) SCHEMATIC DIAGRAM


0 3 MAIN[SYSCON]
TO VIDEO/N.AUDIO
I2C_DATA
I2C_CLK
3.58NTSC[H]/P.ON_P
A.MUTE[H]
V.P.CTL
VHS[H]
SECAM[H]
SLOW_PULSE
CTL1
CTL2
TRICK[H]
D.FF
C.SYNC/V.REF
ET_REC[H]
V.PULSE
CTL[+]
CTL[-]
GND
MESECAM[H]/AGC_CTL
NORM/MESEC/S
SECAM_DET
VIDEO_ENV
SB_GAIN
TO FRONT
TO CAPSTAN MDA
CN3001
TO ROTARY ENCODER
JS3001
TO SW.REG
TO FRONT
IC3001
HD6432194SB***F
HD64F2194CF***
IC3002
IC3003
TO FMA
TO OSD
TO TUNER
TO TERMINAL
##:FOR FLASH WRITE

DIFFERENCE_TABLE

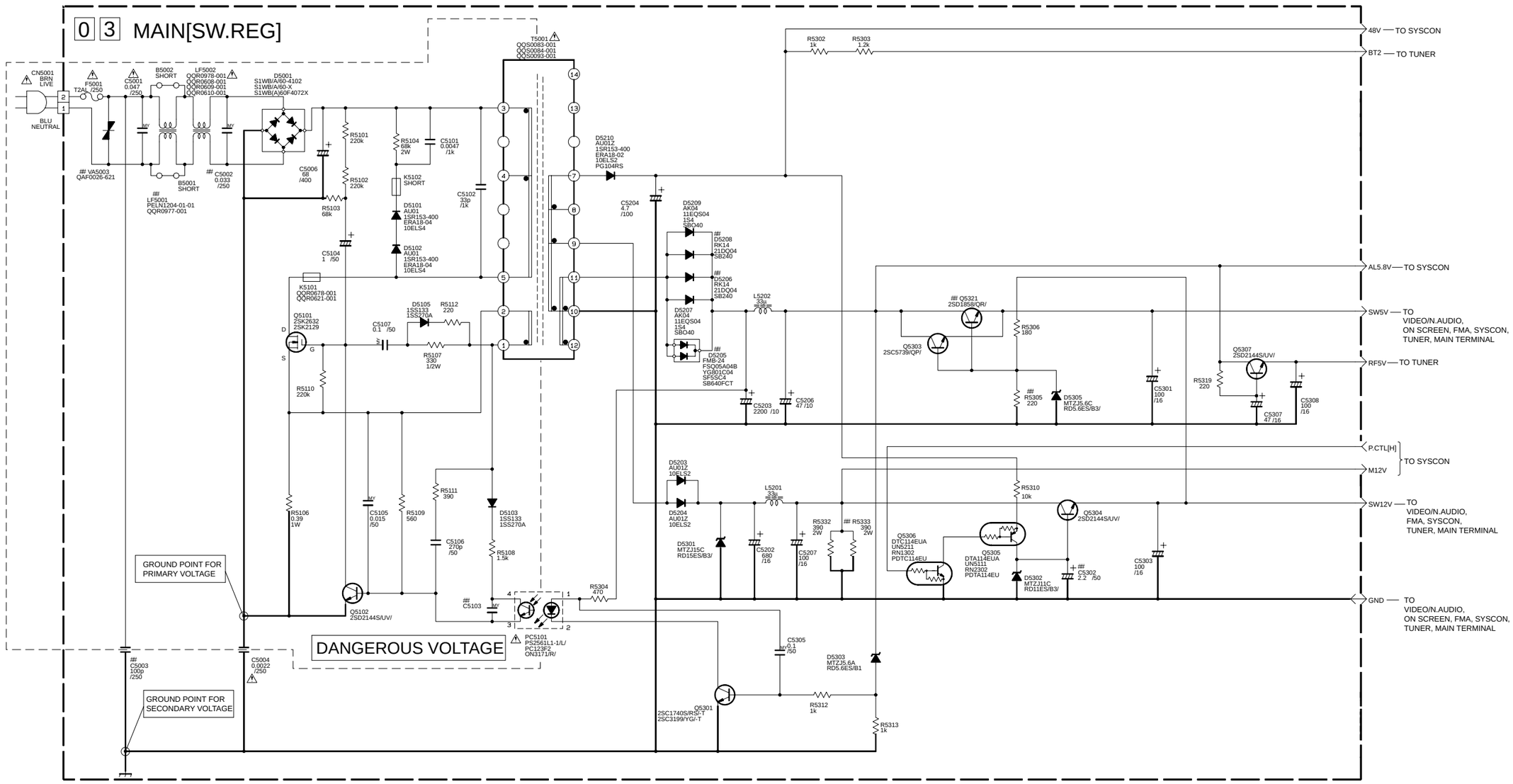
	R3032 R3233	R3012	R3080 R3083	R3104	D3007
S25EX/EK	O	X	O	O	X
S2EX/EK	X	X	O	X	X
S1EX	X	X	X	X	X
S1EF	X	O	X	X	X
S2EF	X	O	O	X	X
S25AG	O	X	O	O	O
S1AA	X	X	X	X	O

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

p10504001a_rev0

4.5 MAIN(SW.REG) SCHEMATIC DIAGRAM



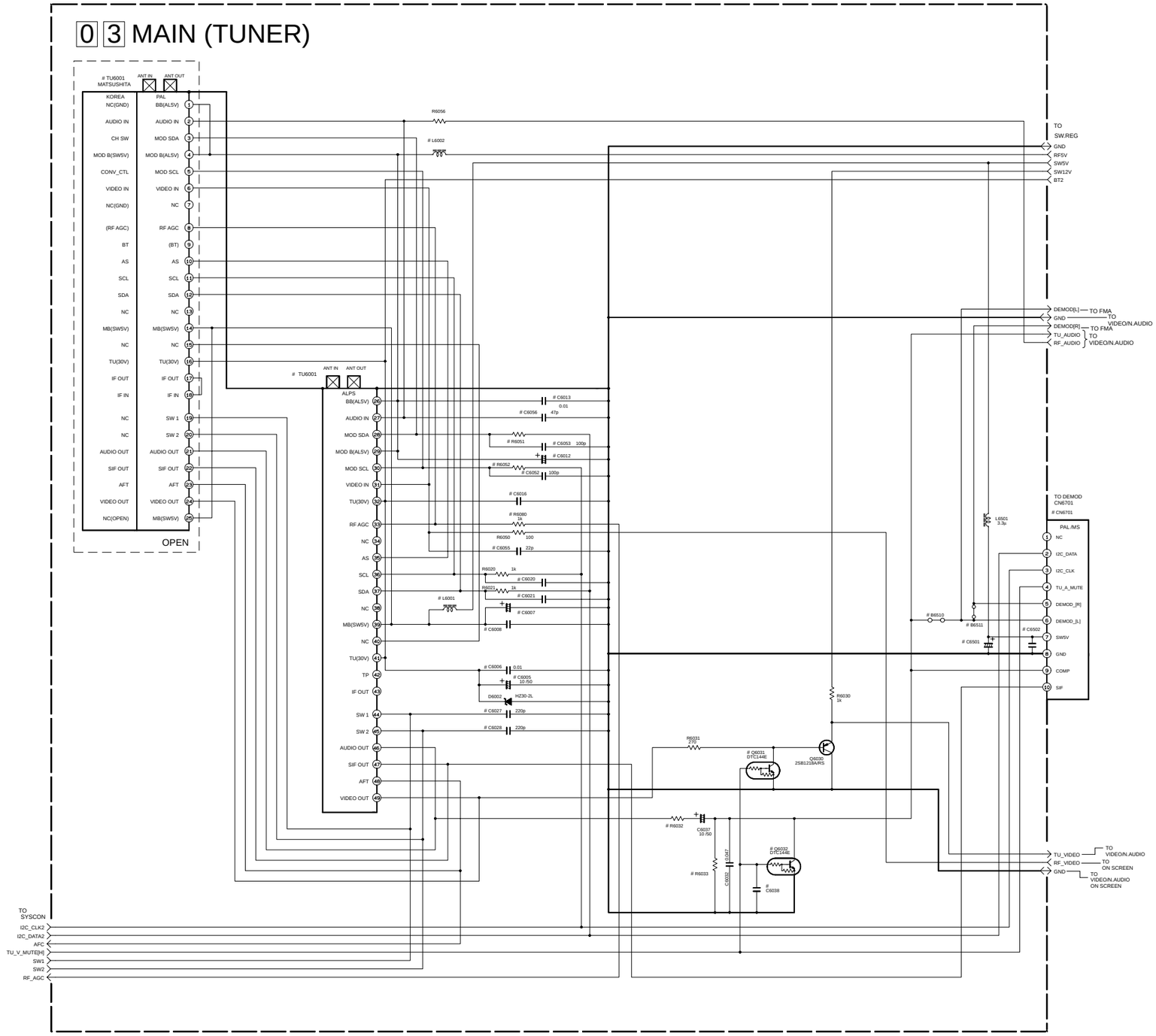
MARK ELEMENTS ARE NOT MOUNTED

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20236001a_rev0

4.6 MAIN(TUNER) SCHEMATIC DIAGRAM



DIFFERENCE TABLE ○ : Used × : Not used

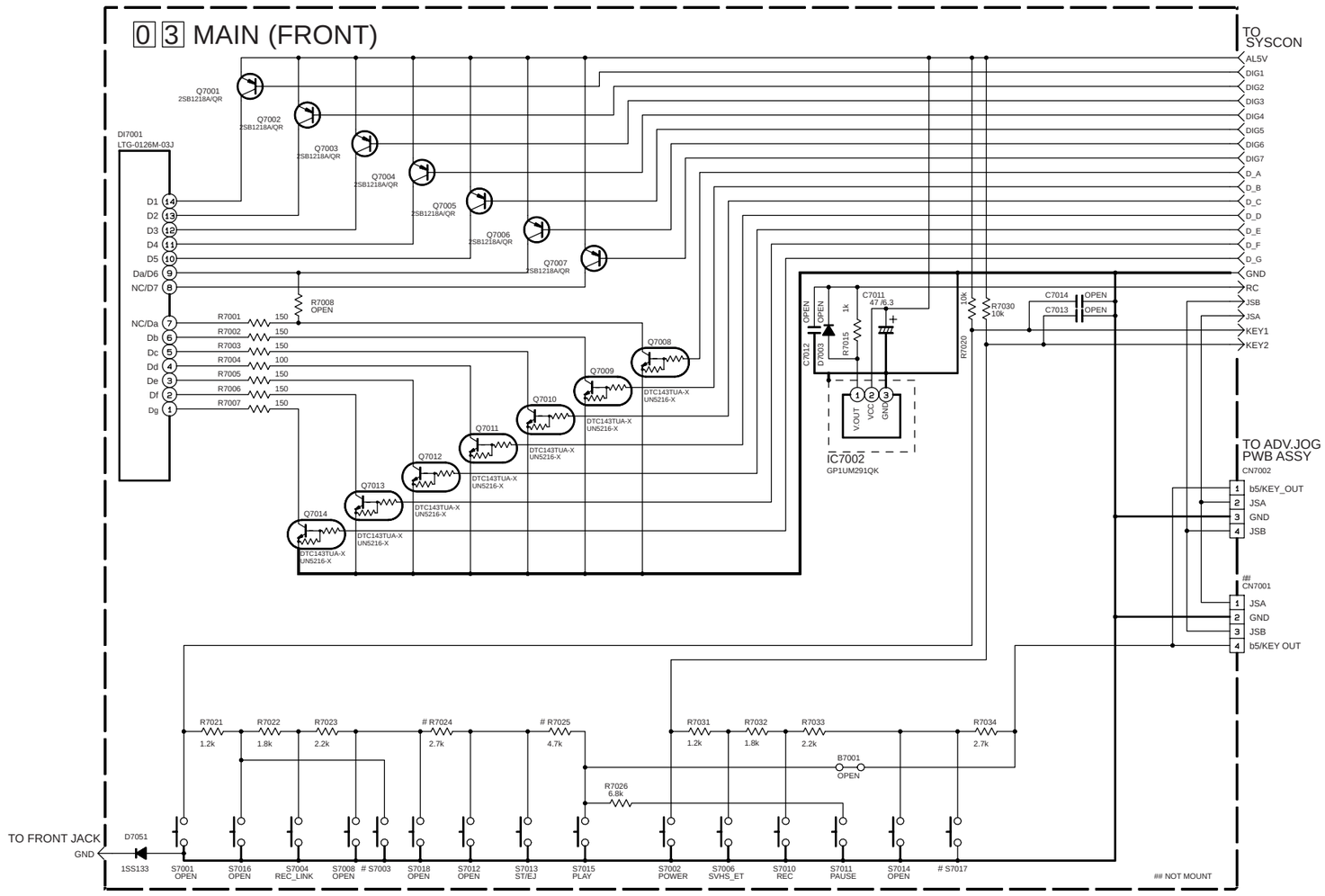
			EU/EK	FRANCE MS	EE
TUNER		TU6001	ALPS	LG	ALPS
			QAU0261	QAU0266	QAU0261
ATS+		R6080	1kΩ	1kΩ	×
SW5V		L6001	10μ	10μ	10μ
		C6007	×	×	×
		C6008	0.01	×	0.01
RFSV		C6012	×	×	×
		C6013	0.01	0.01	0.01
BT2	RF CONV.	C6016	×	×	×
	TUNER	C6005	×	×	×
		C6006	×	×	×
RF CONV.	I2C	R6051	100	×	100
		C6053	×	×	×
		R6052	100	×	100
		C6052	×	×	×
	AUDIO IN	R6056	100	×	100
		C6056	○	×	○
	VIDEO IN	R6050	○	×	○
		C6055	○	×	○
TUNER I2C		C6020	×	×	×
		C6021	×	×	×
SYSTEM SW		C6027	×	×	×
		C6028	×	×	×
AUDIO OUT		R6032	4.7k	18k	4.7k
		R6033	1.8k	18k	1.8k
		C6032	○	×	○
		Q6032	○	○	×
VIDEO OUT		Q6031	○	○	×
DEMOD PASS CON		C6501	10μ	10μ	10μ
		C6502	0.01	0.01	0.01

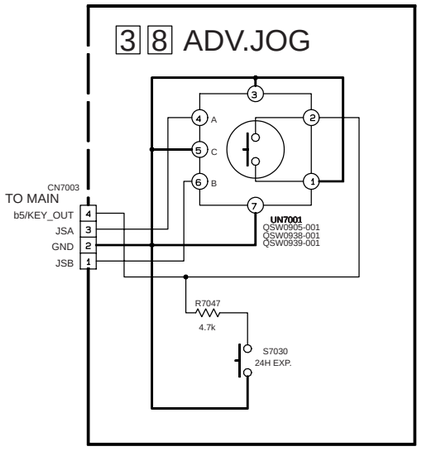
NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p10436001a_rev0

4.7 MAIN(FRONT) AND ADV.JOG SCHEMATIC DIAGRAMS





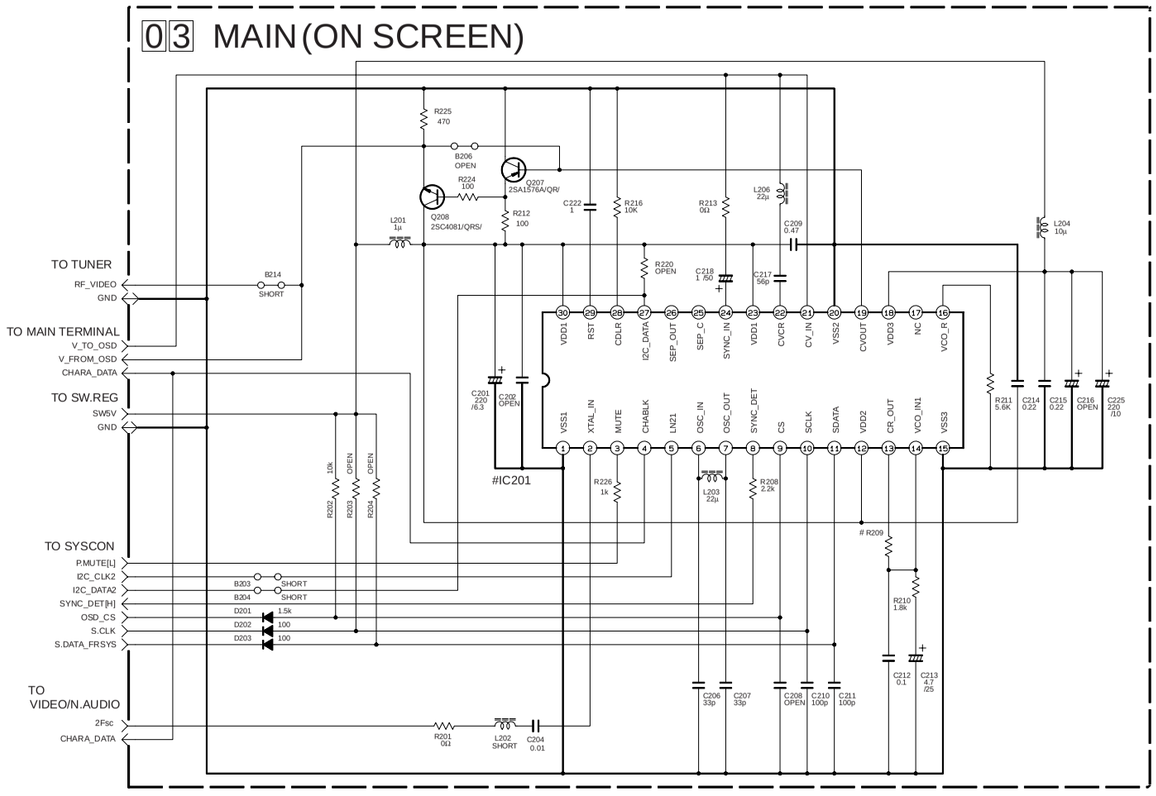
#DIFFERENCE TABLE 1

TOOL	Working No	S7001	S7002	S7003	S7004	S7006	S7008	S7010	S7011	S7012	S7013	S7014	S7015	S7016	S7017	S7018	S7030
400KA	S1/S2	-	POWER	TIMER	REC LINK	S-VHS ET	-	REC	PAUSE	-	ST/EJ	-	PLAY	-	SP/LP /EP	-	24H EXP
	S25	-	POWER	INSERT	REC LINK	S-VHS ET	-	REC	PAUSE	-	ST/EJ	-	PLAY	-	A.DUB	-	24H EXP

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20334001a_rev0

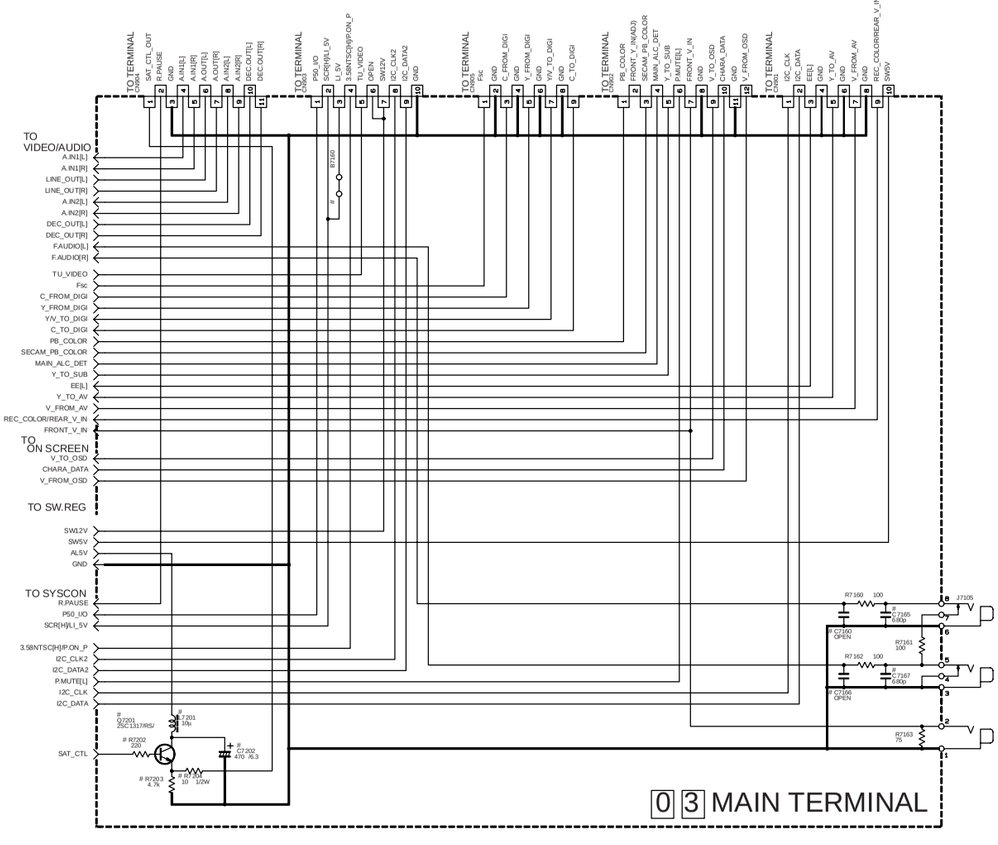


NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

DIFFERENCE TABLE

	IC201	R209
EE	LC74776-9791	6.8k
OTHER	LC74775-9750	5.1k



NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

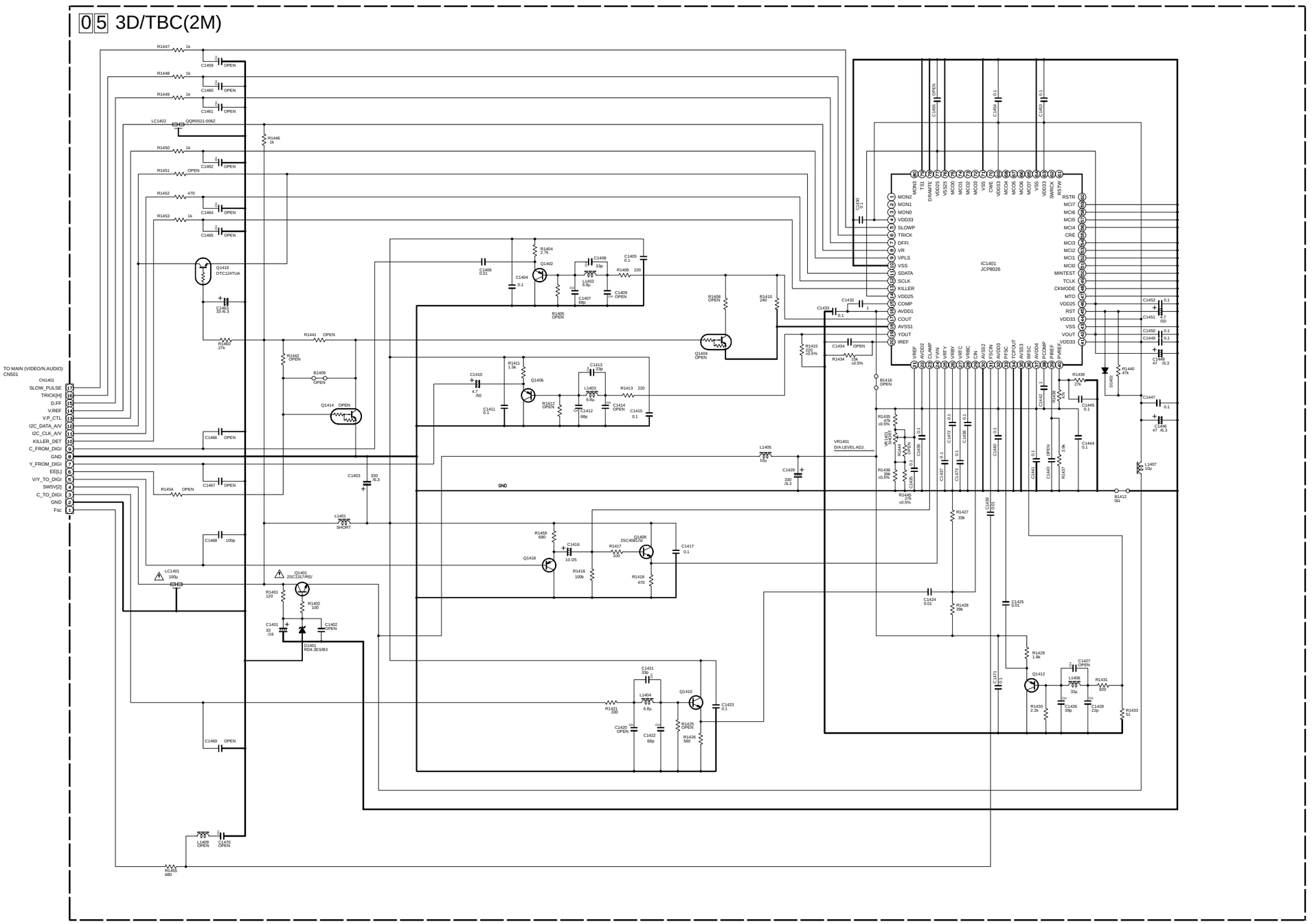
DIFFERENCE TABLE

SAT CTL	Q7201 R7202 R7203 R7204 C7202 L7201
YES	○
NO	×

CE	C7160 C7165 C7166 C7167
YES	○
NO	×

LITH BATT	B7160
YES	○
NO	×

4.10 3D/TBC (2M) SCHEMATIC DIAGRAM



NOTES:UNLESS OTHERWISE SPECIFIED.
- ALL RESISTANCE VALUES ARE IN OHMS.
- ALL INDUCTANCE VALUES ARE IN H.
- ALL CAPACITANCE VALUES ARE IN μF.

E ELECTROLYTIC
C CERAMIC
MY MYLER
N NON POLAR

ALL DIODES ARE 1SS133 OR 1N4148.
ALL FNP TYPE TRANSISTORS ARE 2SA1576A/QR/. OR 2PA1576R/.
ALL NPN TYPE TRANSISTORS ARE 2SC4081/QR/S/. OR 2PC4081/R/.

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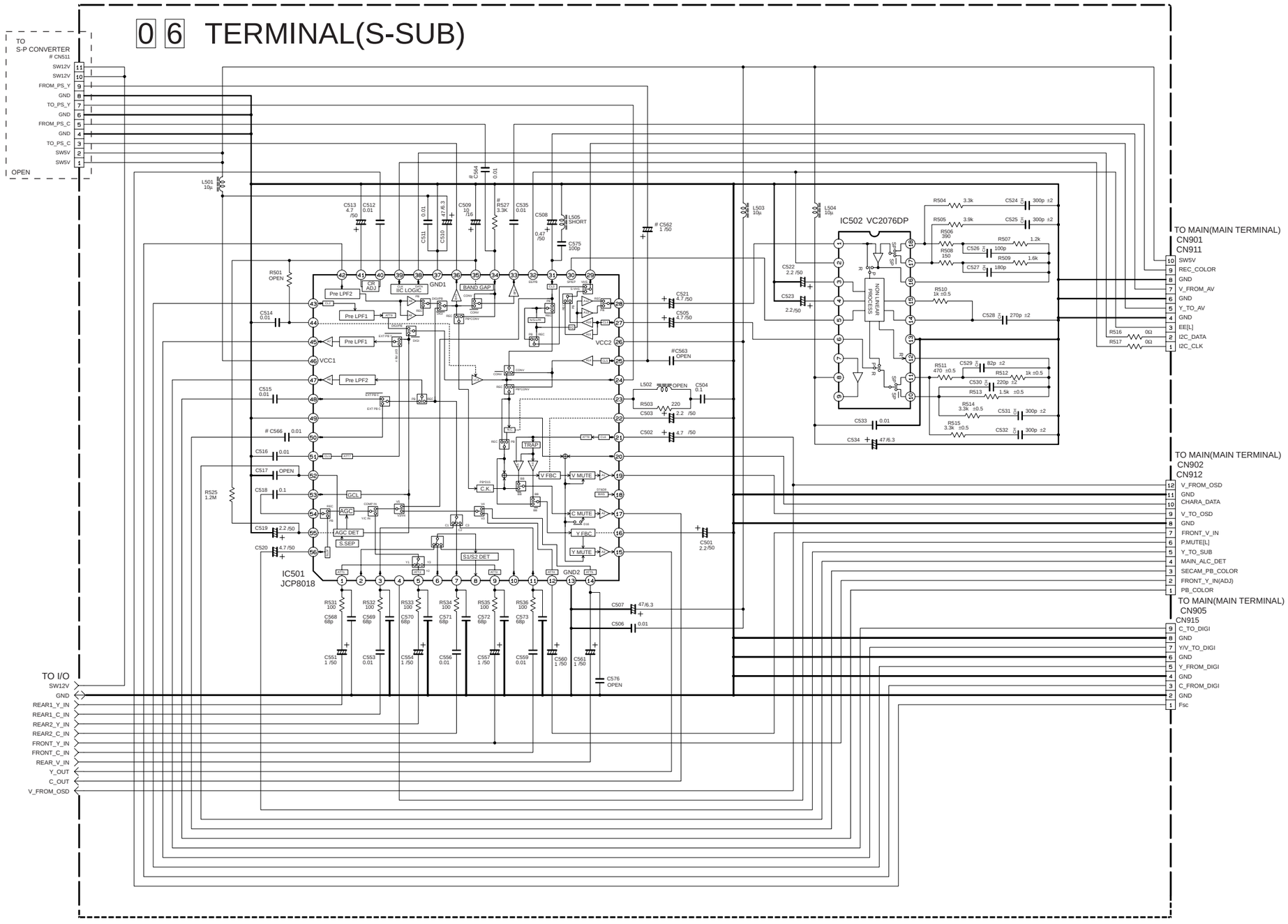
4.11 TERMINAL(S-SUB) SCHEMATIC DIAGRAM



O : Used
× : Not used

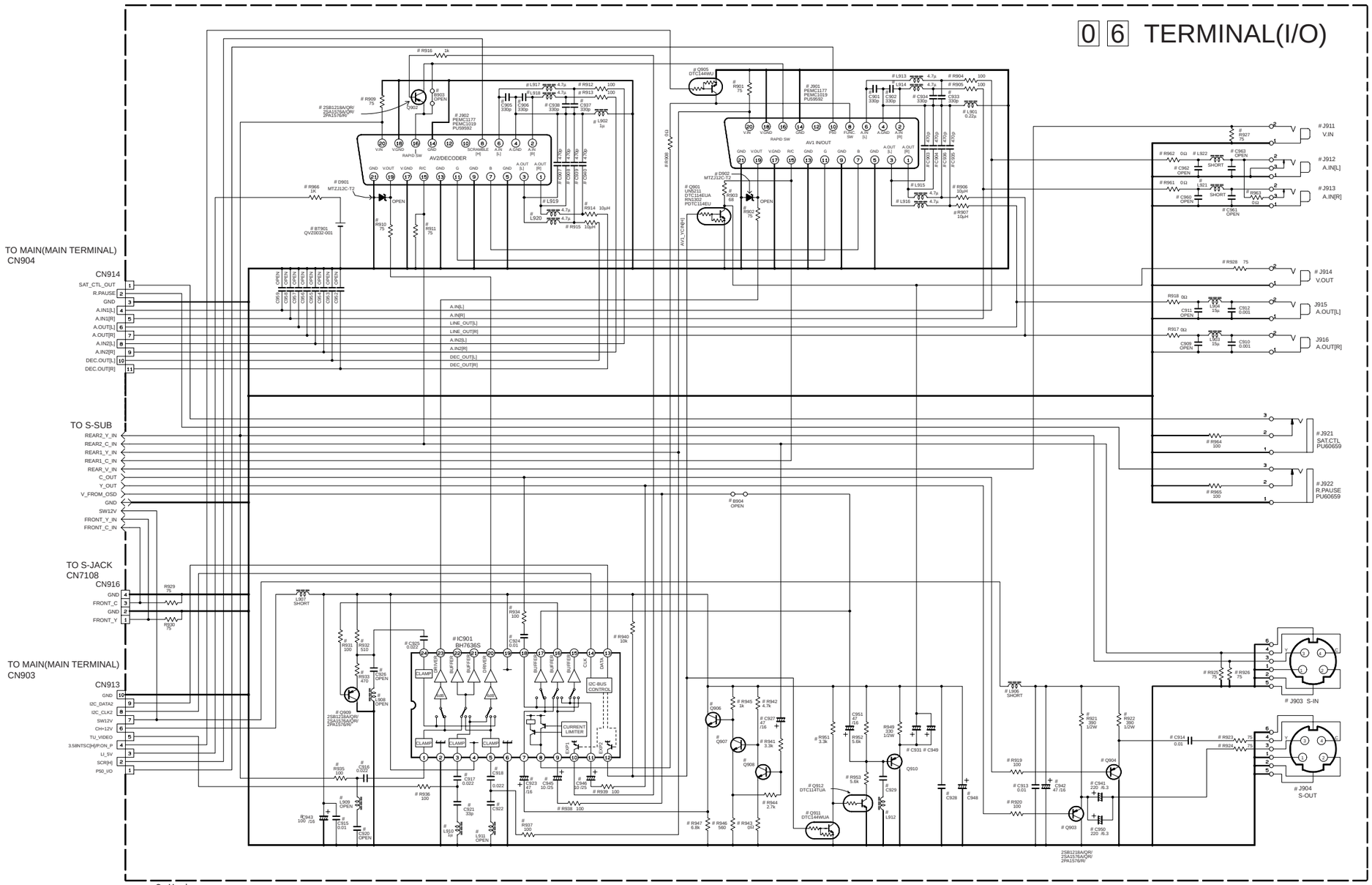
DIFFERENCE TABLE

	CN511 C562 C564 C566	C563 R527
MS	○	×
OTHERS	×	○

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20213001a_rev0

4.12 TERMINAL(I/O) SCHEMATIC DIAGRAM



○ : Used
× : Not used

DIFFERENCE TABLE

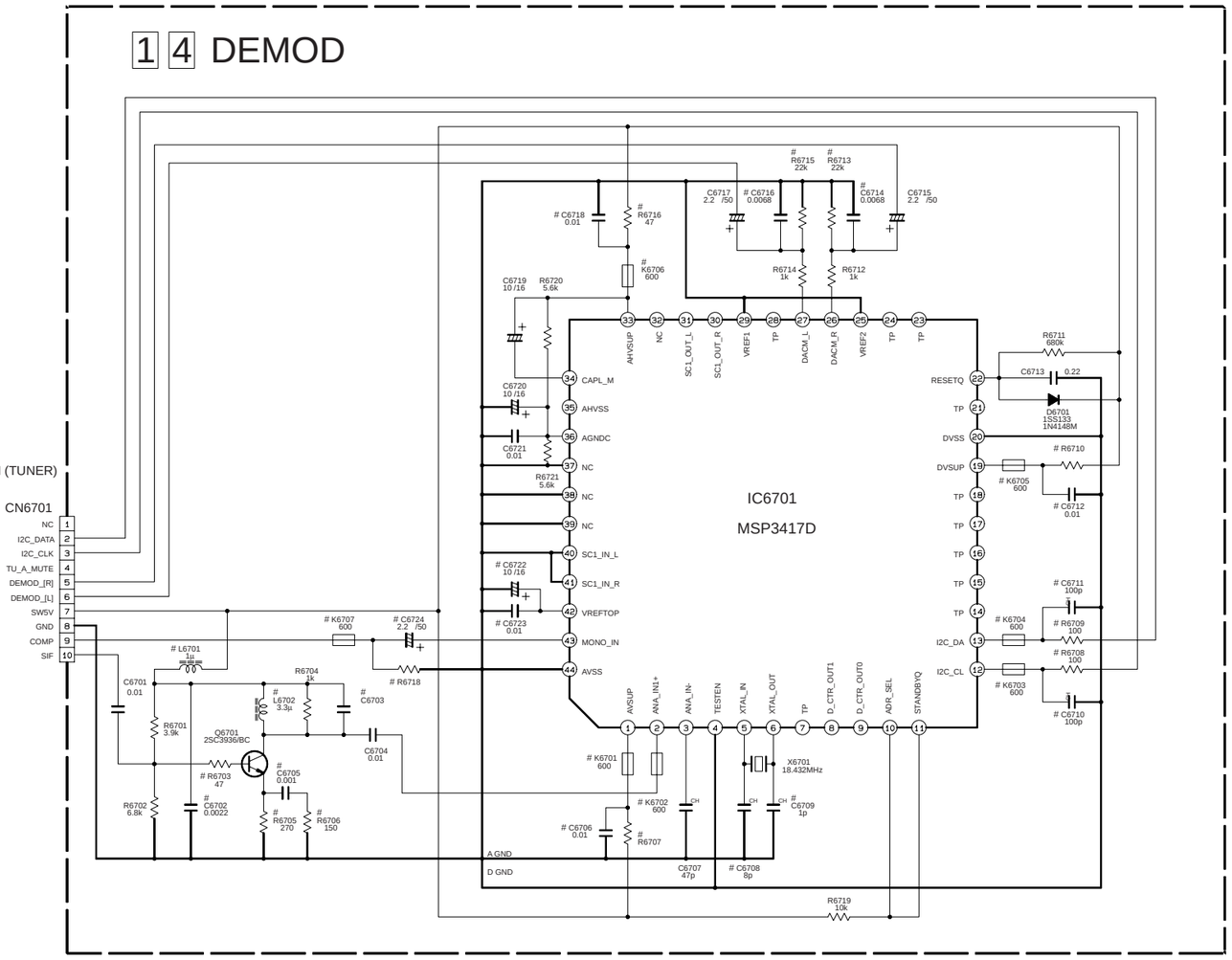
		CH+	REAR S-OUT	S-IN	REAR IN/OUT	SAT CTL	R.PAUSE	SW12VDECUP				CE/V-OUT DRIVER				BACK UP
		R901-R908, R909-R916, R931-R947, R951,R953 L901,L902 L908-L911, L913-L916, L917-L920, IC901 B903,B904 D901,D902 J901,J902	C901-C904, C905-C908, C916-C918, C920-C927, C933-C936, C937-C940, C945,C946 Q902 Q901,Q905 Q906-Q909, Q911,Q912	J904 R919-R924 C913,C914 C941,C942 C950 Q903,Q904 L906	J903 R925,R926	J911-J914 R927,R928 R961-R963 L921,L922 C960-C963	J921 R964	J922 R965	C915	C943	C928	C948	C929	L912	C931	C949	R966 BT901
EURO MODELS	WITHOUT REAR S-OUT	○	×	×	×	○	×	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	×
	WITH REAR S-OUT	○	○	×	×	○	○	0.01	100/16	0.01	OPEN	OPEN	OPEN	10/25	OPEN	×
ARC MODELS		×	○	○	○	×	×	OPEN	OPEN	0.01	47/16	5.6k	SHORT	220/6.3	220/6.3	○

ALL NPN TYPE TRANSISTORS ARE 2SC4081/QRS/ or 2SD1819A/QRS/ or 2PC4081/R/.
ALL PNP TYPE TRANSISTORS ARE 2SA1576A/QR/ or 2SB1218A/QR/ or 2PA1576/R/.

NOTES:UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

4.13 DEMODULATOR SCHEMATIC DIAGRAM



DIFFERENCE TABLE ○ : Used × : Not used

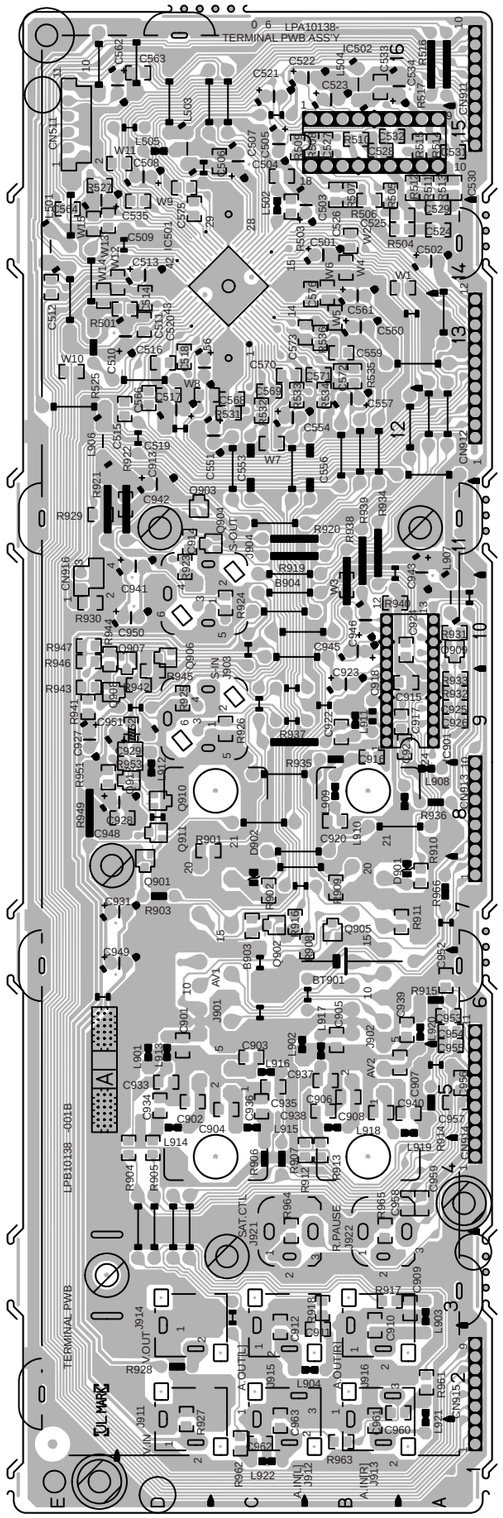
		EU/EK	MS	KR	MS	EX/EK	AA/AG		
DEMOD PWB ASSY		LPA10094-09*	LPA10094-10*	LPA10094-11*	LPA10094-12*	LPA10094-13*	LPA10094-14*		
PRE AMP	R6703	0	0	47	0	0	0		
	R6705	270	270	270	270	270	270		
	R6706	×	×	100	×	×	×		
	C6702	×	×	×	×	×	×		
	C6703	×	×	×	×	×	180p		
	C6705	×	×	0.001	×	×	×		
	L6701	SHORT	SHORT	SHORT	SHORT	SHORT	SHORT		
	L6702	×	×	3.3μ	×	×	3.3μ		
MONO IN	K6707	×	FE 600	×	FE 600	×	×		
	C6724	×	0.22/50	×	0.22/50	×	×		
	R6718	×	×	×	×	×	×		
I2C-BUS	R6708	FE 600	FE 600	FE 600	FE 600	10k	10k		
	R6709	FE 600	FE 600	FE 600	FE 600	1k	1k		
	K6703	10k	0	1k	1k	FE 600	FE 600		
	K6704	0	0	1k	1k	FE 600	FE 600		
	C6710,C6711	×	×	×	×	×	×		
ANALOG Vcc	R6707	FE 600	FE 600	FE 600	39	0	0		
	K6701	33	33	39	FE 600	FE 600	FE 600		
	C6706	×	×	×	×	×	×		
DIGITAL Vcc	R6710	FE 600	FE 600	FE 600	12	0	0		
	K6705	0	10	12	FE 600	FE 600	FE 600		
	C6712	×	×	×	×	×	×		
DAC Vcc	R6716	FE 600	FE 600	FE 600	47	47	47		
	K6706	47	47	47	FE 600	FE 600	FE 600		
	C6718	×	×	×	×	×	×		
X'TAL	C6708	7p	7p	7p	8p	7p	7p		
	C6709	3p	3p	3p	2p	3p	3p		
DAC OUT	R6713,R6715	12k	12k	×	×	○	○		
	C6714,C6716	0.0022	0.0068	0.0022	0.0068	0.0022	0.0022		
VREFTOP	C6722	×	×	×	×	×	×		
	C6723	0.01	0.01	0.001	0.01	0.01	0.01		

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

p20162001a_rev3.1

4.14 TERMINAL CIRCUIT BOARD

<06> TERMINAL
LPB10138-001B

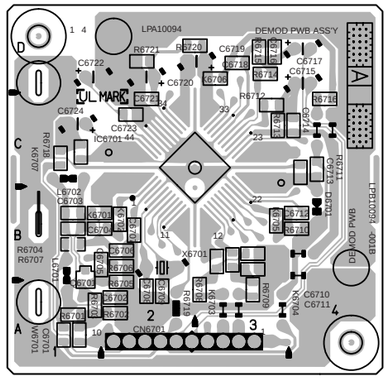


COMPONENT PARTS LOCATION GUIDE
<TERMINAL> LPB10138-001B

REF.NO.	LOCATION
CAPACITOR	
C501	A D 14B
C502	A D 14A
C503	A D 14B
C504	B C 15C
C505	A D 15C
C506	B C 15C
C507	A D 15C
C508	A D 15D
C509	A D 14E
C510	A D 13D
C511	B C 13D
C512	B C 14E
C513	A D 14D
C514	B C 13D
C515	B C 12D
C516	B C 13D
C517	B C 12D
C518	B C 13D
C519	A D 12D
C520	A D 13D
C521	A D 16C
C522	A D 16C
C523	A D 16B
C524	B C 14A
C525	B C 14A
C526	B C 15B
C527	B C 15B
C528	B C 15B
C529	B C 14A
C530	B C 15A
C531	B C 15A
C532	B C 15B
C533	B C 16B
C534	A D 16A
C535	B C 14D
C551	A D 12C
C553	A D 12C
C554	A D 12C
C556	A D 12B
C557	A D 12B
C559	B C 13B
C560	A D 13B
C561	A D 13B
C562	A D 16D
C563	B C 16D
C564	B C 14E
C566	B C 12D
C568	B C 12C
C569	B C 12C
C570	B C 13C
C571	B C 13B
C572	B C 13B
C573	B C 13B
C575	B C 14D
C576	B C 13B
C901	B C 5D
C902	B C 5D
C903	B C 5C
C904	B C 5C
C905	B C 6B
C906	B C 5B
C907	B C 5A
C908	B C 5B
C909	B C 3A
C910	B C 3B
C911	B C 2B
C912	B C 2C
C913	B C 11D
C914	B C 11D
C915	B C 9A
C916	B C 9B
C917	B C 9A
C918	A D 9B
C920	B C 8B
C921	B C 9A
C922	B C 9B
C923	A D 9B
C924	B C 10A
C925	B C 9A
C926	B C 9A
C927	A D 9E
C928	B C 8D
C929	B C 9D
C931	A D 7E
C933	B C 5D
C934	B C 5D
C935	B C 5C
C936	B C 5C
C937	B C 5B
C938	B C 5B
C939	B C 6A
C940	B C 5A
C941	A D 11D
C942	A D 11D
C943	A D 11A
C945	A D 10B
C946	A D 10B
C948	A D 8E
C949	A D 6E
C950	A D 10D
C951	A D 9E
C952	B C 6A
C953	B C 6A
C954	B C 6A
C955	B C 5A
C956	B C 5A
C957	B C 5A
C958	B C 4A
C959	B C 4A
C960	B C 2B
C961	B C 1B
C962	B C 1C
C963	B C 1C
CONNECTOR	
CN511	A D 15E
CN911	A D 15A
CN912	A D 12A
CN913	A D 7A
CN914	A D 4A
CN915	A D 1A
CN916	A D 10E
DIODE	
D901	A D 8A
D902	A D 7C
IC	
IC501	B C 14C
IC502	A D 15B
IC901	A D 9B
JACK	
J901	A D 6C
J902	A D 6B
J903	A D 9D
J904	A D 10D
J911	A D 2D
J912	A D 2C
J913	A D 2B
J914	A D 3D
J915	A D 3C
J916	A D 3B
J921	A D 4C
J922	A D 4B
COIL	
L501	A D 14E
L502	A D 14C
L503	A D 15D
L504	A D 16B
L505	A D 15D
L901	A D 5D
L902	A D 5C
L903	A D 3A
L904	A D 2B
L906	A D 12E
L907	A D 10A
L908	A D 8A
L909	A D 8B
L910	A D 8A
L911	A D 9B
L912	A D 8D
L913	A D 6D
L914	A D 5D
L915	A D 5C
L916	A D 5C
L917	A D 6B
L918	A D 5B
L919	A D 5B
L920	A D 5A
L921	A D 2A
L922	A D 1C
TRANSISTOR	
Q901	B C 7D
Q902	B C 7C
Q903	B C 11D
Q904	B C 11D
Q905	B C 7B
Q906	B C 10D
Q907	B C 10D
Q908	B C 9E
Q909	B C 10A
Q910	B C 8D
Q911	B C 8D
Q912	B C 8D
RESISTOR	
R501	B C 13D
R503	B C 14C
R504	B C 14A
R505	B C 15B
R506	B C 14B
R507	B C 15B
R508	B C 15B
R509	B C 15C
R510	B C 15B
R511	B C 15A
R512	B C 15A
R513	B C 15A
R514	B C 15A
R515	B C 15A
R516	A D 16A
R517	A D 16A
R525	A D 13E
R527	B C 15E
R531	B C 12C
R532	B C 12C
R533	B C 12C
R534	B C 12B
R535	B C 13B
R536	B C 13B
R901	B C 8D
R902	B C 7C
R903	A D 7D
R904	B C 4D
R905	B C 4D
R906	A D 4C
R907	A D 4C
R908	B C 7B
R909	B C 7B
R910	B C 7A
R911	B C 7A
R912	B C 4B
R913	B C 4B
R914	A D 5A
R915	A D 6A
R916	B C 7C
R917	B C 3B
R918	B C 3B
R919	A D 11B
R920	A D 11B
R921	A D 11E
R922	A D 11D
R923	B C 11D
R924	B C 10C
R925	B C 9D
R926	B C 9C
R927	B C 2D
R928	A D 2D
R929	B C 11E
R930	B C 10E
R931	B C 10A
R932	B C 9A
R933	B C 9A
R934	A D 11B
R935	A D 9B
R936	A D 8A
R937	A D 9B
R938	A D 11B
R939	A D 11B
R940	B C 10B
R941	B C 9E
R942	B C 9D
R943	B C 9E
R944	B C 10E
R945	B C 9D
R946	B C 10E
R947	B C 10E
R949	A D 8E
R951	B C 8E
R952	B C 9D
R953	B C 8D
R961	B C 2A
R962	B C 1C
R963	B C 1B
R964	B C 4C
R965	B C 4B
R966	A D 7A
OTHER	
BT901	A D 6B

4.15 DEMODULATOR CIRCUIT BOARD

<14> DEMODULATOR
LPB10094-001C



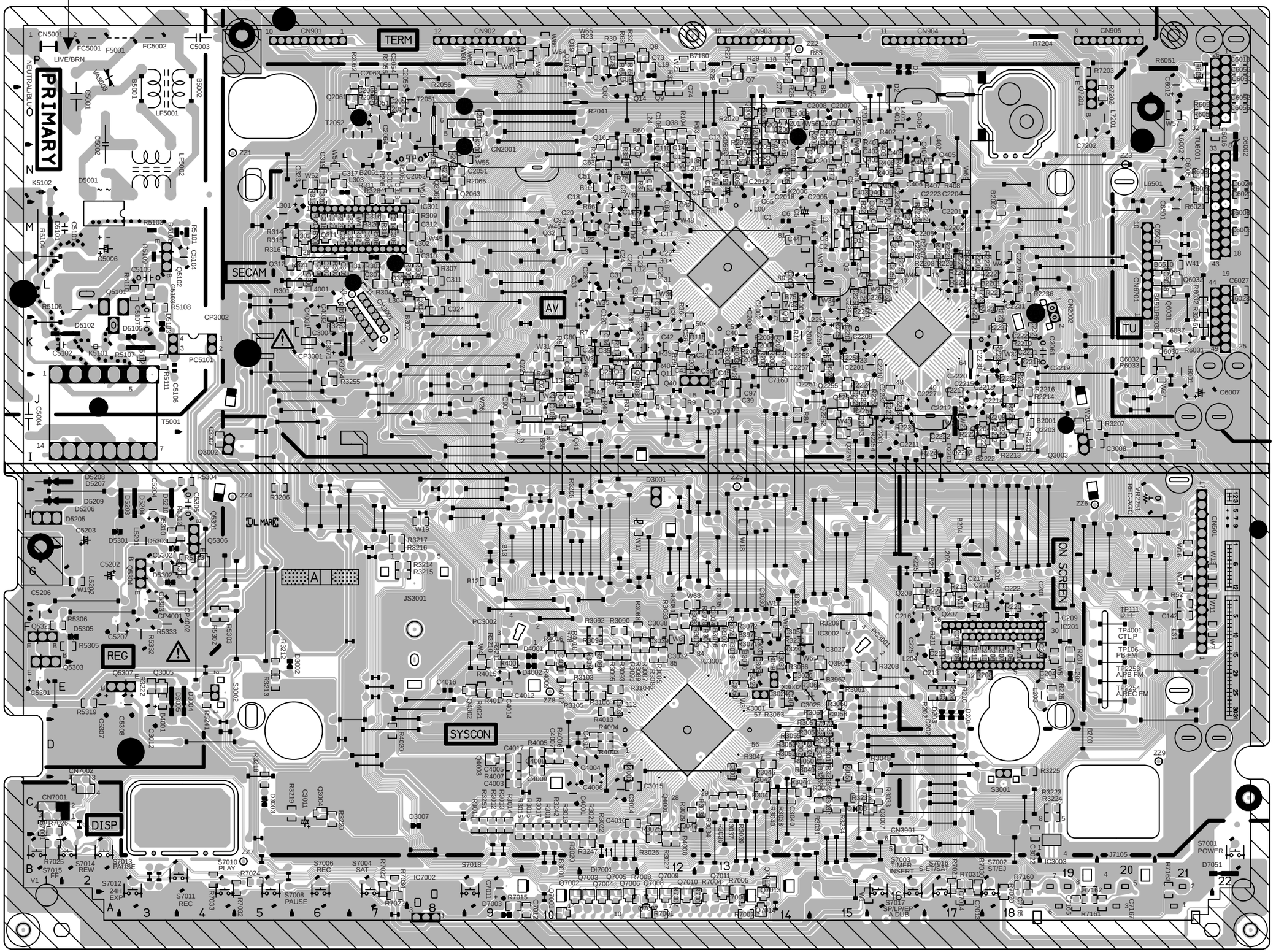
COMPONENT PARTS LOCATION GUIDE
<DEMODULATOR> LPB10094-001C

REF.NO.	LOCATION
CAPACITOR	
C1501	A D 4C
C1502	A D 3D
C1503	A D 4D
C1504	A D 4C
C1505	A D 3D
C1506	A D 3C
C1507	A D 2C
C1508	A D 1D
C1509	A D 2C
C1510	A D 1B
C1511	A D 1A
C1512	A D 2A
C1513	A D 2B
C1514	A D 2A
C1515	A D 3B
C1516	A D 3C
C1517	A D 3B
C1518	A D 3A
C1519	A D 3B
C1520	A D 3A
C1521	A D 2C
CONNECTOR	
CN1501	A D 3A
IC	
IC1501	B C 2C
TRANSISTOR	
Q1501	A D 3B
Q1502	A D 3B
RESISTOR	
R1501	A D 4C
R1502	A D 2C
R1503	A D 2C
R1504	A D 2B
R1505	A D 2B
R1506	A D 2B
R1507	A D 2B
R1508	A D 3B
R1509	A D 3B
R1510	A D 4B
R1511	A D 3A
R1514	A D 2B
R1515	A D 2C
R1517	A D 2C

4.16 MAIN CIRCUIT BOARD [FOR HR-S8960AG]

DANGEROUS VOLTAGE

<03>MAIN
LPB10170-003A



COMPONENT PARTS LOCATION GUIDE <MAIN> LPB10170-003A

REF.NO.	LOCATION
CAPACITOR	
C1	B C 15L
C2	B C 15M
C3	B C 15M
C4	B C 16M
C5	A D 14M
C6	A D 14M
C7	B C 15N
C8	B C 15N
C9	A D 11M
C10	B C 13N
C11	B C 13N
C12	B C 12N
C13	B C 13N
C14	B C 12N
C15	B C 12N
C16	B C 12N
C17	A D 12M
C18	A D 11N
C19	A D 11M
C20	A D 11M
C21	B C 11M
C22	A D 12M
C23	B C 12M
C24	A D 11L
C25	B C 12L
C26	B C 11L
C27	B C 12L
C28	A D 11L
C29	B C 11K
C30	B C 12L
C31	A D 11L
C32	B C 12L
C33	A D 11L
C34	B C 11K
C35	B C 11K
C36	A D 12K
C37	A D 12K
C38	A D 13K
C39	B C 13J
C40	A D 13K
C41	B C 12K
C42	B C 12K
C43	B C 13J
C44	B C 14M
C45	B C 13K
C51	A D 11N
C53	B C 12K
C59	B C 11P
C60	A D 11P
C61	B C 13N
C62	B C 12M
C63	B C 11N
C64	B C 10J
C65	A D 14N
C69	B C 16M
C70	B C 16M
C72	B C 14P
C73	B C 12P
C74	B C 12O
C75	B C 11P
C78	B C 11P
C80	B C 10K
C81	B C 10K
C84	B C 12N
C87	B C 12M
C88	B C 11M
C90	B C 9J
C92	B C 11M
C97	B C 13J
C99	B C 13J
C103	B C 14P
C106	B C 12O
C108	B C 10J
C110	B C 12N
C114	B C 10J
C120	A D 11K
C125	B C 13K
C136	B C 12N
C142	B C 21F
C201	A D 18F
C202	B C 19F
C204	B C 19E
C206	B C 18F
C207	B C 18F
C208	B C 18F
C209	B C 19F
C210	B C 18F
C211	B C 17F
C212	B C 17F
C213	A D 17E
C214	B C 17F
C215	B C 17F
C216	A D 16F
C217	B C 17G
C218	A D 17G
C222	A D 18G
C225	A D 16F
C301	B C 6L
C302	B C 6L
C303	B C 6M
C304	B C 7M
C305	B C 6L
C306	B C 6L
C307	B C 7L
C308	B C 7M
C309	B C 7M
C310	B C 8M
C311	B C 8L
C312	B C 8M
C313	B C 7N
C314	B C 7M
C315	B C 7N
C316	B C 7M
C317	B C 6N
C318	B C 6M
C319	B C 6N
C320	B C 6N
C321	B C 6M
C322	B C 7M
C323	A D 6N
C324	B C 8L
C401	B C 16O
C402	B C 16N
C403	B C 15N
C404	B C 17N
C405	B C 16N
C406	B C 16N
C407	B C 16N
C409	A D 16O
C2001	A D 13K
C2002	A D 14L
C2003	A D 14L
C2004	B C 14L
C2005	A D 15N
C2006	B C 15O
C2007	A D 15O
C2008	A D 15O
C2009	B C 14O
C2010	B C 15N
C2011	A D 14N
C2012	A D 13N
C2013	B C 15N
C2014	B C 12K
C2016	B C 15O
C2017	B C 14O
C2018	B C 14N
C2051	B C 8N
C2052	A D 7N
C2053	B C 7O
C2054	B C 7P
C2055	A D 8O
C2061	A D 19K
C2062	B C 7O
C2063	B C 7P
C2064	A D 7O
C2201	A D 17M
C2202	A D 17M
C2203	A D 17L
C2204	A D 17M
C2205	A D 16M
C2206	A D 16M
C2207	B C 16M
C2208	B C 15K
C2209	A D 15K
C2210	A D 16K
C2211	A D 16I
C2212	A D 16J
C2213	B C 16J
C2214	A D 18J
C2215	A D 17J
C2216	A D 17J
C2217	B C 17J
C2218	A D 18J
C2219	A D 18K
C2220	A D 18J
C2221	B C 18K
C2222	B C 17I
C2223	B C 16M
C2224	B C 15J
C2225	A D 18L
C2226	A D 18L
C2227	A D 16J
C2228	B C 18K
C2229	B C 18K
C2230	A D 18K
C2231	A D 18K
C2232	B C 16J
C2233	B C 16J
C2251	B C 16M
C2252	B C 16M
C2253	B C 16L
C2254	A D 15L
C2255	B C 15L
C2256	B C 15L
C2257	B C 15K
C2258	B C 15K
C2259	A D 15K
C2261	B C 16L
C2262	B C 16L
C3004	B C 6K
C3007	B C 4I
C3008	B C 19I
C3011	A D 6C
C3012	A D 3E
C3014	A D 11C
C3015	B C 11C
C3016	B C 13D
C3017	B C 15D
C3018	B C 15D
C3020	B C 15D
C3021	B C 14D
C3022	B C 18C
C3024	B C 14E
C3025	A D 15E
C3026	B C 14E
C3027	A D 14F
C3030	A D 14F
C3031	B C 14F
C3032	B C 12F
C3033	B C 11E
C3034	B C 13F
C3035	B C 13F
C3036	B C 14E
C3037	B C 14F
C3038	B C 12F
C3039	B C 12F
C3040	B C 14C
C3041	B C 14E
C3049	B C 12C
C3050	B C 13E
C3054	B C 14F
C3071	A D 6K
C4001	A D 10C
C4002	B C 11D
C4003	B C 9C
C4004	A D 11D
C4005	B C 9D
C4006	A D 11C
C4007	B C 10D
C4008	B C 10D
C4009	B C 10D
C4010	B C 11C
C4011	B C 10F
C4012	A D 9E
C4014	B C 9E
C4015	B C 11D
C4016	A D 8E
C4017	B C 9D
C4031	A D 6L
C4032	B C 6L
C5001	A D 2P
C5002	A D 2N
C5003	A D 4P
C5004	A D 1J
C5006	A D 2M
C5101	A D 2M
C5102	A D 1K
C5103	B C 3L
C5104	A D 4M
C5105	A D 3L
C5106	A D 3J
C5107	A D 3L
C5202	A D 2G
C5203	A D 2H
C5204	A D 3H
C5206	A D 1F
C5207	A D 3F
C5301	A D 1E
C5302	A D 3G
C5303	A D 3G
C5305	A D 4H
C5307	A D 2E
C5308	A D 3E
C6005	A D 21N
C6006	B C 22M
C6007	A D 21J
C6008	B C 22M
C6012	A D 21O
C6013	B C 22P
C6016	B C 22O
C6020	B C 22N
C6021	B C 22N
C6027	B C 22L
C6028	B C 22L
C6032	B C 20K
C6037	A D 21K
C6038	B C 21L
C6052	B C 22O
C6053	B C 22P
C6055	B C 22O
C6056	B C 22P
C6501	A D 21M
C6502	B C 21M
C7011	A D 9A
C7012	B C 10A
C7013	B C 17A
C7014	B C 17A
C7160	B C 14K
C7165	B C 18A
C7166	B C 19A
C7167	B C 20A
C7202	A D 19O
CONNECTOR	
CN1	A D 16M
CN501	A D 21F
CN901	A D 6P
CN902	A D 10P
CN903	A D 14P
CN904	A D 17P
CN905	A D 20P
CN2001	A D 9O
CN2002	A D 19L
CN3001	A D 7L
CN3901	A D 16B
CN5001	A D 1P
CN6701	A D 20L
CN7001	A D 1C
CN7002	A D 2C
DIODE	
D1	A D 16P
D2	A D 16P
D4	A D 11M
D5	A D 12N
D201	A D 17E
D202	A D 17E
D203	A D 17E
D2201	A D 17I
D2251	A D 15J
D3001	A D 12H
D3002	A D 5E
D3003	A D 5C
D3004	A D 4E
D3005	A D 3E
D3007	A D 7C
D3008	B C 15C
D4001	A D 10F
D4002	A D 10E
D5001	B C 2M
D5101	A D 1M
D5102	A D 2K
D5103	A D 3K
D5105	A D 3K
D5203	A D 3I
D5204	A D 3I
D5205	A D 1H
D5206	A D 2H
D5207	A D 2I
D5208	A D 2I
D5209	A D 2H
D5210	A D 3I
D5301	A D 2H
D5302	A D 4G
D5303	A D 4G
D5305	A D 2F
D6002	A D 22N
D7003	A D 9A
D7051	A D 22B
FUSE	
F5001	A D 2P
IC	
IC1	B C 13L
IC2	B C 10J
IC201	A D 19E
IC301	A D 6M
IC2201	B C 16K
IC3001	B C 12D
IC3002	B C 14F
IC3003	B C 19B
IC7002	A D 8A
COIL	
K2001	B C 15O
K2002	B C 15O
K2003	B C 9N
K2004	B C 9O
K2005	B C 14N
K2006	B C 14N
K2251	B C 16L
K2252	B C 16M
K2253	B C 16M
K5101	A D 2K
K5102	A D 1N
L1	A D 15M
L2	A D 12N
L3	A D 10M
L4	A D 11L
L5	A D 13J
L12	A D 12L
L13	A D 10J
L15	A D 11P
L18	A D 14P
L19	A D 12P
L20	A D 12N
L22	A D 11M
L24	A D 12O
L27	A D 10J
L28	A D 12N
L31	A D 21F
L201	A D 18G
L202	A D 19E
L203	A D 19E
L204	A D 17E
L206	A D 17G
L301	A D 6M
L302	A D 7M
L303	A D 7N
L304	A D 8L
L401	A D 16N
L402	A D 17O
L2001	A D 14K
L2201	A D 16J
L2251	A D 14L
L2252	A D 15K
L4001	A D 6L
L5201	A D 3H
L5202	A D 2G
L6001	A D 21J
L6002	A D 21O
L6501	A D 21N
L7201	A D 20O
TRANSISTOR	
Q1	B C 15M
Q2	B C 15M
Q3	B C 15M
Q4	B C 15M
Q5	B C 15P
Q7	B C 13P
Q8	B C 12P
Q9	B C 12O
Q10	B C 11K
Q11	B C 12J
Q14	B C 12O
Q16	B C 11O
Q17	B C 12N
Q18	B C 10P
Q19	B C 11P
Q21	B C 10J
Q22	B C 10J
Q23	B C 10J
Q24	B C 12K
Q25	B C 11K
Q32	B C 10M
Q38	B C 12O
Q40	B C 12J
Q41	B C 10J
Q50	B C 14L
Q207	B C 17G
Q208	B C 16G
Q301	B C 7L
Q302	B C 6M
Q303	B C 8L
Q311	B C 6M
Q312	B C 5L
Q401	B C 16N
Q402	B C 16N
Q403	B C 16N
Q404	B C 16N
Q405	B C 17N
Q2001	B C 14O
Q2002	B C 14O
Q2003	B C 14N
Q2004	B C 13O
Q2051	B C 7O
Q2052	B C 14N
Q2053	B C 13N
Q2054	B C 13O
Q2055	B C 14N
Q2061	B C 7O
Q2062	B C 8N
Q2063	B C 8N
Q2201	B C 18I
Q2202	B C 17I
Q2203	B C 18J
Q2204	B C 18J
Q2251	B C 15I
Q2252	B C 15J
Q2253	B C 15J
Q2254	B C 15J
Q2255	B C 15J
Q3002	A D 5I
Q3003	A D 19I
Q3004	B C 6C
Q3005	B C 3E
Q3007	B C 16C
Q3901	B C 15E
Q4001	B C 12C
Q4002	B C 9E
Q4003	B C 9D
Q5101	A D 2L
Q5102	A D 3M
Q5301	A D 4G
Q5303	A D 1F
Q5304	A D 3G
Q5305	B C 4G
Q5306	B C 4G
Q5307	A D 3E
Q5321	A D 1F
Q6030	B C 21K
Q6031	B C 21L
Q6032	B C 21L
Q7001	B C 10A
Q7002	B C 10A
Q7003	B C 11A
Q7004	B C 11A
Q7005	B C 11A
Q7006	B C 11A
Q7007	B C 12A
Q7008	B C 12A
Q7009	B C 12A
Q7010	B C 12A
Q7011	B C 13A
Q7012	B C 14B
Q7013	B C 14A
Q7014	B C 14A
Q7201	A D 19P
RESISTOR	
R1	B C 13M
R2	B C 13N
R3	B C 12N
R5	B C 10K
R6	B C 12L
R7	B C 11K
R8	B C 12J
R9	B C 12J
R10	A D 14K
R21	B C 16M
R22	B C 15M
R23	B C 11P
R25	B C 14P
R26	B C 14P
R27	B C 13P
R28	B C 13P
R29	B C 13P
R30	B C 11P
R31	B C 12O
R32	B C 11P
R33	B C 11N
R34	B C 11N
R35	B C 11N
R36	B C 12K
R38	B C 11K
R39	B C 12K
R40	B C 12K
R41	B C 11J
R42	B C 11J
R43	B C 11J
R46	B C 10K
R48	B C 11J
R49	B C 10K
R50	B C 10J
R51	B C 11J
R52	B C 21G
R65	B C 11P
R66	B C 11M
R68	B C 11P
R71	B C 14L
R75	B C 11N
R76	B C 11P
R77	B C 15N
R78	B C 10F
R79	B C 12K
R84	B C 14J
R85	B C 15P
R88	B C 12J
R90	B C 12N
R93	B C 12O
R104	B C 12O
R117	B C 11K
R118	B C 13K
R201	B C 19F
R202	B C 17E
R203	B C 17E
R204	B C 17E
R208	B C 18E
R209	B C 17F
R210	B C 17E
R211	B C 17F
R212	B C 17F
R213	B C 17G
R216	B C 18F
R220	B C 18F
R224	B C 17G
R225	B C 16G
R226	B C 19E
R301	B C 6L
R302	B C 6L
R303	B C 7L
R304	B C 7L
R305	B C 8L
R306	B C 7M
R307	B C 8L
R308	B C 8L
R309	B C 8M
R310	B C 7M
R311	B C 7N
R312	B C 6N
R313	B C 6M
R314	B C 5M
R315	B C 5M
R316	B C 6M
R317	B C 7L
R318	B C 8L
R321	B C 6L
R326	B C 7M
R327	B C 7M
R328	B C 7N
R329	B C 6M
R401	B C 16O
R402	B C 16N
R403	B C 16N
R404	B C 16N
R405	B C 16N
R406	B C 16N
R407	B C 17N
R408	B C 17N
R2001	B C 13K
R2002	B C 13K
R2003	B C 13K
R2004	B C 13K
R2005	B C 14K
R2006	B C 14K
R2007	B C 14K
R2008	B C 14K
R2009	B C 14K
R2010	B C 14K
R2013	B C 15N
R2014	B C 15O
R2015	B C 15O
R2016	B C 14O
R2017	B C 14O
R2018	B C 14N
R2019	B C 14N
R2020	B C 13O
R2041	A D 11O
R2051	B C 8N
R2052	B C 8N
R2053	B C 8N
R2054	B C 7O
R2055	B C 7P
R2056	A D 8O
R2057	B C 13N
R2058	B C 13N
R2059	B C 13O
R2060	B C 14O
R2061	B C 7O
R2062	B C 7P
R2063	A D 7O
R2064	B C 8N
R2065	B C 8N
R2201	B C 17L
R2202	B C 17L
R2203	B C 17L
R2204	B C 17L
R2205	B C 17M
R2206	B C 17L
R2207	B C 17M
R2208	B C 17L
R2209	B C 18J
R2210	B C 18I
R2211	B C 18J
R2212	B C 18J
R2213	B C 18I
R2214	B C 18J
R2215	B C 18J
R2216	B C 18J
R2217	B C 18J
R2218	B C 18K
R2219	B C 18K
R2220	B C 17I
R2222	B C 17M
R2223	B C 16M
R2224	B C 15J
R2225	B C 15J
R2226	B C 18L
R2227	B C 18L
R2228	B C 17M
R2229	B C 17L
R2230	B C 18L
R2231	B C 17L
R2232	B C 18L
R2233	B C 17L
R2234	B C 18J
R2235	B C 18K
R2236	B C 18L
R2237	B C 18K
R2238	B C 18L
R2239	B C 16J
R2240	B C 17I
R2251	B C 15K
R2252	B C 15L
R2253	B C 15K
R2254	A D 16I
R2255	B C 16J
R2256	B C 15J
R2257	B C 15K
R3011	B C 9C
R3012	B C 9C
R3013	B C 9C
R3014	B C 9C
R3015	B C 9C
R3016	B C 10C
R3017	B C 10C
R3018	B C 10C
R3019	B C 10C
R3020	B C 10C
R3021	B C 11C
R3022	B C 11C
R3025	B C 12C
R3026	B C 12B
R3027	B C 12B
R3029	B C 12C
R3030	B C 13C
R3031	B C 15C
R3032	B C 15C
R3033	B C 16C
R3034	B C 13C
R3035	B C 14C
R3036	B C 13C
R3037	B C 13C
R3038	B C 14C
R3039	B C 13C
R3040	B C 14C
R3041	B C 14C
R3042	B C 14C
R3044	B C 14C
R3046	B C 14D
R3047	B C 14D
R3048	B C 15D
R3049	B C 14D
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R7204	A D 19P
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S7001	A D 22B
S7002	A D 18B
S7003	A D 16B
S7004	A D 7B
S7006	A D 6B
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S7014	A D 2B
S7015	A D 1B
S7016	A D 17B
S7017	A D 16B
S7018	A D 9B
TEST POINT	
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TP111	A D 19F
TP2253	A D 19E
TP2254	A D 19E
TP3901	B C 14D
TP3902	B C 13D
TP3903	B C 15E
TP3904	B C 13E
TP3905	B C 14E
TP3906	B C 14D
TP3907	B C 14D
TP3908	B C 15E
TP4001	A D 20F
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B12	B C 9G
B17	B C 10J
B60	B C 11O
B65	B C 10J
B75	B C 14L
B203	A D 19D
B204	A D 17H
B206	B C 17G
B214	B C 17G
B301	B C 6M
B302	B C 8L
B2001	B C 18J
B2002	B C 18M
B2051	A D 7N
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B2222	B C 17I
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B3966	A D 14G
B3971	B C 13F
B4001	B C 3E
B5001	A D 3P
B5002	A D 4P
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B7160	B C 13P
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CP3002	B C 6K
CP4001	A D 3G
CP4002	B C 4G
DI7001	A D 12A
FC5001	A D 2P
FC5002	A D 3P
J7105	A D 20A
JS3001	A D 8G
LF5001	A D 4P
LF5002	A D 3N
PC3001	A D 15F
PC3002	A D 9F
PC5101	A D 4K
T2051	A D 7O
T2052	A D 6O
T5001	A D 1K
TU6001	A D 22P
VA5003	A D 2O
VR2251	A D 20H
X1	A D 12K
X2	A D 12K
X3001	A D 14E
X3002	A D 14E

COMPONENT PARTS LOCATION GUIDE <MAIN> LPB10170-004A

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C2	B C 15M
C3	B C 15M
C4	B C 16M
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C7	B C 15N
C8	B C 15N
C9	A D 11M
C10	B C 13N
C11	B C 13N
C12	B C 12N
C13	B C 13N
C14	B C 12N
C15	B C 12N
C16	B C 12N
C17	A D 12M
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C53	B C 12K
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C60	A D 11P
C61	B C 13N
C62	B C 12M
C63	B C 11N
C64	B C 10J
C65	A D 14N
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C70	B C 16M
C72	B C 14P
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C87	B C 12M
C88	B C 11M
C90	B C 9J
C92	B C 11M
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CN902	A D 10P
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CN904	A D 17P
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CN5001	A D 1P
CN6701	A D 20L
CN7001	A D 1C
CN7002	A D 2C
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D3003	A D 5C
D3004	A D 4E
D3005	A D 3E
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D3008	B C 15C
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D6002	A D 22N
D7003	A D 9A
D7051	A D 22B
DI7001	A D 12A
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IC	
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IC2	B C 10J
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IC301	A D 6M
IC2201	B C 16K
IC3001	B C 12D
IC3002	B C 14F
IC3003	B C 19B
IC7002	A D 8A
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L3	A D 10M
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L15	A D 11P
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L22	A D 11M
L24	A D 12O
L27	A D 10J
L28	A D 12N
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L203	A D 19E
L204	A D 17E
L206	A D 17G
L301	A D 6M
L302	A D 7M
L303	A D 7N
L304	A D 8L
L401	A D 16N
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L5202	A D 2G
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L6002	A D 21O
L6501	A D 21N
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Q4	B C 15M
Q5	B C 15P
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Q8	B C 12P
Q9	B C 12O
Q10	B C 11K
Q11	B C 12J
Q14	B C 12O
Q16	B C 11O
Q17	B C 12N
Q18	B C 10P
Q19	B C 11P
Q21	B C 10J
Q22	B C 10J
Q23	B C 10J
Q24	B C 12K
Q25	B C 11K
Q32	B C 10M
Q38	B C 12O
Q40	B C 12J
Q41	B C 10J
Q50	B C 14L
Q207	B C 17G
Q208	B C 16G
Q301	B C 7L
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Q303	B C 8L
Q311	B C 6M
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Q403	B C 16N
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Q2002	B C 14O
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Q2252	B C 15J
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Q2254	B C 15J
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Q3005	B C 3E
Q3007	B C 16C
Q3901	B C 15E
Q4001	B C 12C
Q4002	B C 9E
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R46	B C 10K
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R2062	B C 7P
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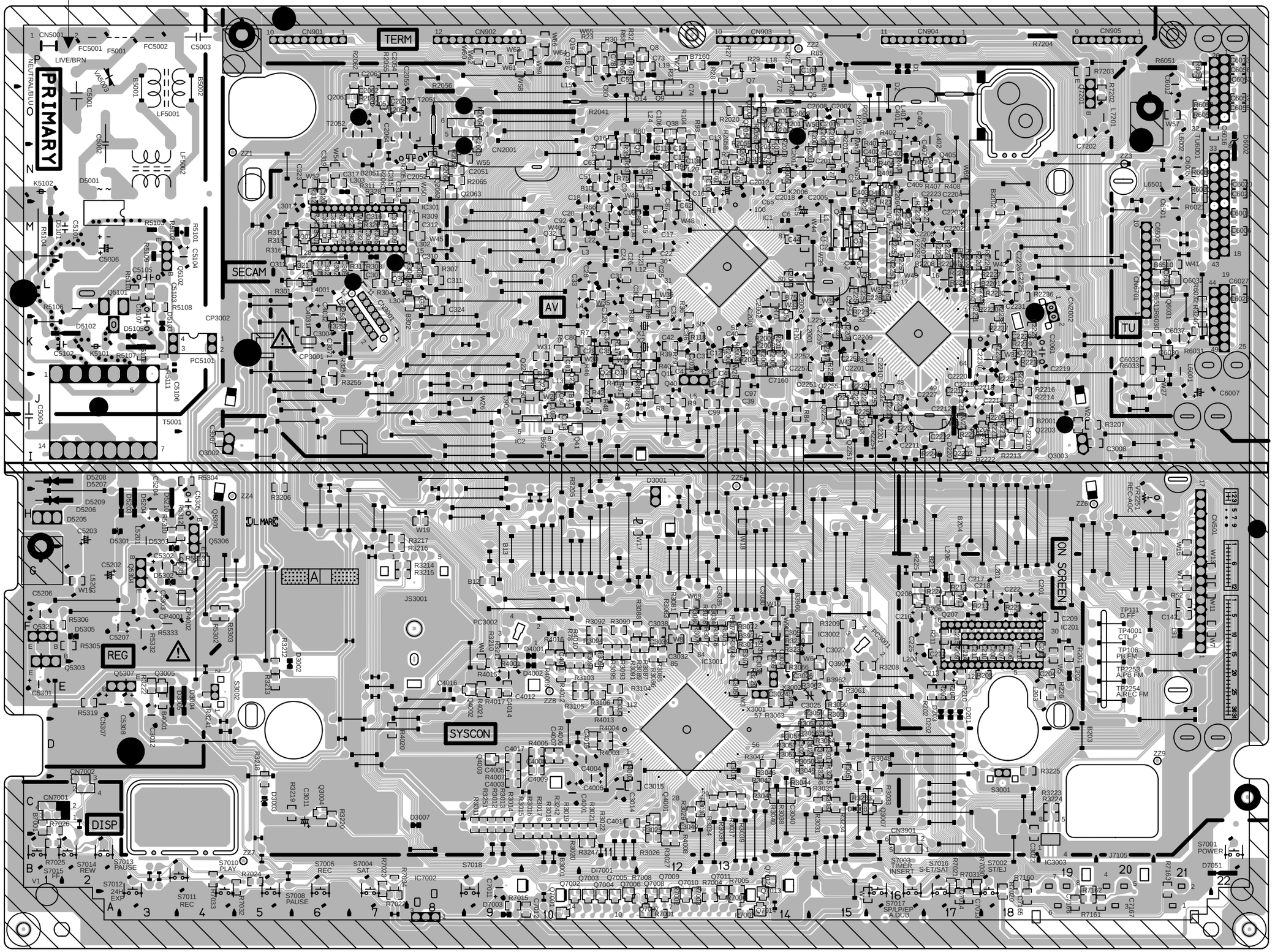
R3054	B C 15D
R3055	B C 14D
R3056	B C 14D
R3057	B C 14D
R3058	B C 15E
R3059	B C 15E
R3060	B C 15E
R3061	B C 15E
R3062	B C 15E
R3063	B C 14E
R3066	B C 14E
R3069	B C 14E
R3071	B C 13F
R3072	B C 13F
R3073	B C 13F
R3074	B C 13F
R3075	B C 13F
R3076	B C 13F
R3077	B C 13F
R3078	B C 13F
R3079	B C 13F
R3080	B C 13F
R3081	B C 12F
R3083	B C 12F
R3085	B C 12F
R3086	B C 12F
R3087	B C 12F
R3088	B C 12F
R3089	B C 11F
R3090	B C 11F
R3091	B C 11F
R3092	B C 11F
R3093	B C 11F
R3094	B C 11F
R3095	B C 11F
R3096	B C 11F
R3097	B C 11F
R3103	B C 11E
R3104	B C 11E
R3105	B C 11E
R3106	B C 11E
R3205	A D 10H
R3206	B C 5I
R3207	B C 19J
R3208	B C 16E
R3209	B C 15F
R3210	B C 9F
R3211	B C 9F
R3212	B C 5E
R3213	B C 5E
R3214	B C 7G
R3215	B C 7G
R3216	B C 7G
R3217	B C 7H
R3218	B C 5C
R3219	B C 6C
R3220	B C 6C
R3222	B C 3E
R3223	B C 19C
R3224	B C 19C
R3225	B C 18D
R3229	B C 14E
R3230	B C 14F
R3231	B C 14F
R3233	B C 15C
R3234	B C 15C
R3235	B C 15D
R3236	B C 15D
R3247	B C 11B
R3251	B C 9C
R3252	B C 6K
R3253	B C 6L
R3254	B C 6K
R3255	B C 6J
R4001	B C 9E
R4003	B C 11D
R4004	B C 11D
R4005	B C 10D
R4006	B C 10D
R4007	B C 9D
R4008	B C 12B
R4009	B C 10F
R4010	B C 11F
R4012	B C 10E
R4013	B C 11E
R4015	B C 9E
R4016	B C 10F
R4017	B C 9E
R4020	B C 7D
R4021	B C 9E
R5101	A D 4M
R5102	A D 4M
R5103	A D 3M
R5104	A D 1L
R5106	A D 2L
R5107	A D 3K
R5108	B C 3L
R5109	A D 3M
R5110	B C 3L
R5111	B C 3K
R5112	B C 3K
R5302	B C 4F
R5303	B C 4F
R5304	B C 4I
R5305	B C 2F
R5306	B C 1F
R5310	B C 3H
R5312	B C 4H
R5313	B C 4G
R5319	B C 2E
R5332	A D 3F
R5333	A D 3F
R6020	B C 21N
R6021	B C 21N
R6030	B C 21K
R6031	B C 21K
R6032	B C 21L
R6033	B C 20K
R6050	B C 21O
R6051	A D 21P
R6052	B C 21O
R6056	B C 21P
R6080	B C 21N
R7001	B C 12A
R7002	B C 12A
R7003	B C 13A
R7004	B C 13A
R7005	B C 13B
R7006	B C 13A
R7007	B C 13A
R7008	B C 12A
R7015	B C 9A
R7020	B C 18A
R7021	B C 17B
R7022	B C 7A
R7023	B C 7B
R7024	B C 5B
R7025	B C 1B
R7026	B C 1C
R7030	B C 17B
R7031	B C 17B
R7032	B C 5B
R7033	B C 4B
R7034	B C 7B
R7160	B C 18B
R7161	B C 19A
R7162	B C 19B
R7163	B C 21B
R7202	B C 20O
R7203	B C 19P
R7204	A D 19P
SWITCH	
S3001	A D 18C
S3002	A D 4E
S7001	A D 22B
S7002	A D 18B
S7003	A D 16B
S7004	A D 7B
S7006	A D 6B
S7008	A D 5B
S7010	A D 4B
S7011	A D 4B
S7012	A D 3B
S7013	A D 2B
S7014	A D 2B
S7015	A D 1B
S7016	A D 17B
S7017	A D 16B
S7018	A D 9B
TESTPOINT	
TP106	A D 19E
TP111	A D 19F
TP2253	A D 19E
TP2254	A D 19E
TP3901	B C 14D
TP3902	B C 13D
TP3903	B C 15E
TP3904	B C 13E
TP3905	B C 14E
TP3906	B C 14D
TP3907	B C 14D
TP3908	B C 15E
TP4001	A D 20F
OTHER	
B5	B C 15P
B10	B C 11N
B12	B C 9G
B17	B C 10J
B60	B C 11O
B65	B C 10J
B75	B C 14L
B203	A D 19D
B204	A D 17H
B206	B C 17G
B214	B C 17G
B301	B C 6M
B302	B C 8L
B2001	B C 18J
B2002	B C 18M
B2051	A D 7N
B2201	B C 18L
B2221	A D 19I
B2222	B C 17I
B3001	A D 10B
B3070	B C 13F
B3962	B C 15E
B3966	A D 14G
B3971	B C 13F
B4001	B C 3E
B5001	A D 3P
B5002	A D 4P
B6510	B C 21L
B6511	B C 21L
B7001	B C 1C
B7160	B C 13P
CP3001	A D 6K
CP3002	B C 6K
CP4001	A D 3G
CP4002	B C 4G
FC5001	A D 2P
FC5002	A D 3P
J7105	A D 20A
JS3001	A D 8G
K2001	B C 15O
K2002	B C 15O
K2003	B C 9N
K2004	B C 9O
K2005	B C 14N
K2006	B C 14N
K2251	B C 16L
K2252	B C 16M
K2253	B C 16M
K5101	A D 2K
K5102	A D 1N
LF5001	A D 4P
LF5002	A D 3N
PC3001	A D 15F
PC3002	A D 9F
PC5101	A D 4K
T2051	A D 7O
T2052	A D 6O
T5001	A D 1K
TU6001	A D 22P
VA5003	A D 2O
VR2251	A D 20H
X1	A D 12K
X2	A D 12K
X3001	A D 14E
X3002	A D 14E

4.17 MAIN CIRCUIT BOARD [FOR HR-S8960EX AND HR-S8965EK]

DANGEROUS VOLTAGE

<03>MAIN
LPB10170-004A

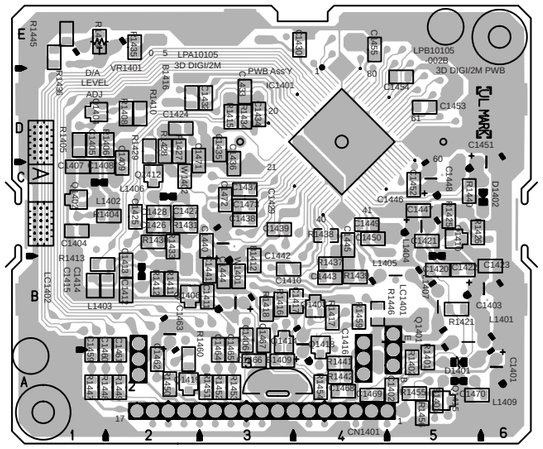


4.18 3D DIGITAL/2M CIRCUIT BOARD

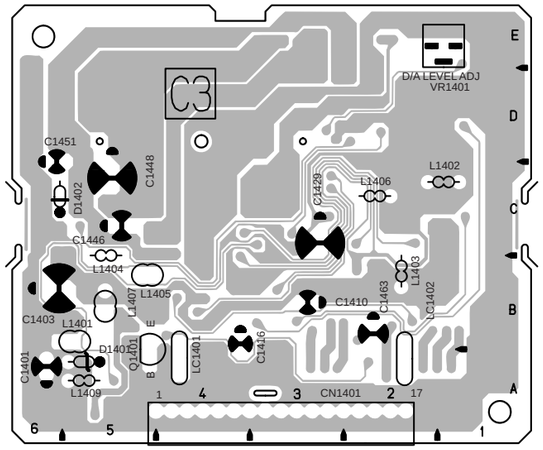
[FOR HR-S8960AG]

<05> 3D DIGITAL/2M
LPB10105-002B

- FOIL SIDE (B) -



- COMPONENT SIDE (A) -



COMPONENT PARTS LOCATION GUIDE <3D DIGITAL/2M> LPB10105-002B

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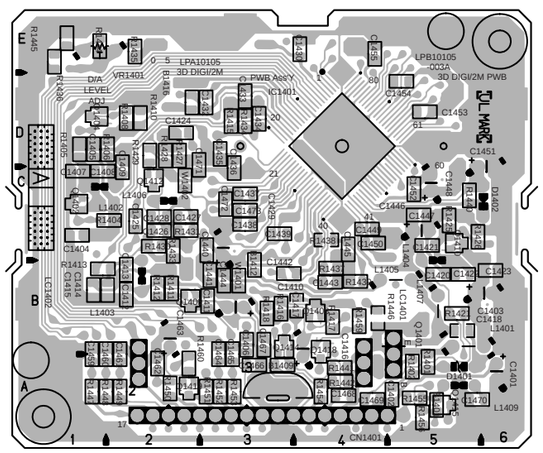
CAPACITOR		C1417	B C 4B	C1437	B C 3C	C1454	B C 5D	**CONNECTOR**		L1407	A D 5B	**RESISTOR**		R1426	B C 6C	R1445	B C 1E
C1401	A D 6A	C1420	B C 5B	C1438	B C 3C	C1455	B C 4E	CN1401	A D 5A	L1409	A D 5A	R1401	B C 5A	R1427	B C 2D	R1446	B C 4B
C1402	B C 5A	C1421	B C 5C	C1439	B C 3C	C1459	B C 1B			LC1401	A D 4A	R1402	B C 5A	R1428	B C 2D	R1447	B C 1A
C1403	A D 6B	C1422	B C 5B	C1440	B C 3C	C1460	B C 2B	**DIODE**		LC1402	A D 2A	R1404	B C 2C	R1429	B C 2D	R1448	B C 2A
C1404	B C 1C	C1423	B C 6B	C1441	B C 3B	C1461	B C 2B	D1401	A D 6A			R1405	B C 1D	R1430	B C 2C	R1449	B C 2A
C1405	B C 1D	C1424	B C 2D	C1442	B C 4B	C1462	B C 2A	D1402	A D 6C	**TRANSISTOR**		R1406	B C 2D	R1431	B C 2C	R1450	B C 2A
C1406	B C 3B	C1425	B C 2C	C1443	B C 4B	C1463	A D 2B			Q1401	A D 5B	R1408	B C 2D	R1433	B C 2C	R1451	B C 3A
C1407	B C 1C	C1426	B C 2C	C1444	B C 3B	C1464	B C 3B	**IC**		Q1402	B C 1C	R1410	B C 2D	R1434	B C 3D	R1452	B C 3A
C1408	B C 2C	C1427	B C 2C	C1445	B C 4C	C1465	B C 3B	IC1401	B C 4D	Q1404	B C 1D	R1411	B C 2B	R1435	B C 2E	R1453	B C 3A
C1409	B C 2C	C1428	B C 2C	C1446	A D 5C	C1466	B C 3A			Q1406	B C 2B	R1412	B C 2B	R1436	B C 1E	R1454	B C 4A
C1410	A D 3B	C1429	A D 3C	C1447	B C 5C	C1467	B C 3B	**COIL**		Q1408	B C 4B	R1413	B C 2B	R1437	B C 4B	R1455	B C 5A
C1411	B C 3B	C1430	B C 4E	C1448	A D 5C	C1468	B C 4A	L1401	A D 5B	Q1410	B C 5C	R1415	B C 3D	R1438	B C 4C	R1456	B C 5A
C1412	B C 2B	C1432	B C 3D	C1449	B C 4C	C1469	B C 4A	L1402	A D 2C	Q1412	B C 2C	R1416	B C 3B	R1439	B C 4B	R1459	B C 4B
C1413	B C 2B	C1433	B C 3D	C1450	B C 4C	C1470	B C 5A	L1403	A D 2B	Q1414	B C 3B	R1417	B C 4B	R1440	B C 5C	R1460	B C 2A
C1414	B C 2B	C1434	B C 3D	C1451	A D 6D	C1471	B C 3D	L1404	A D 5C	Q1415	B C 5A	R1418	B C 3B	R1441	B C 4A		
C1415	B C 1B	C1435	B C 3D	C1452	B C 5C	C1472	B C 3C	L1405	A D 4B	Q1418	B C 4B	R1421	B C 5B	R1442	B C 4A	**OTHER**	
C1416	A D 4A	C1436	B C 3C	C1453	B C 5D	C1473	B C 3C	L1406	A D 2C	Q1419	B C 2A	R1425	B C 5C	R1444	B C 2E	VR1401	A D 2E

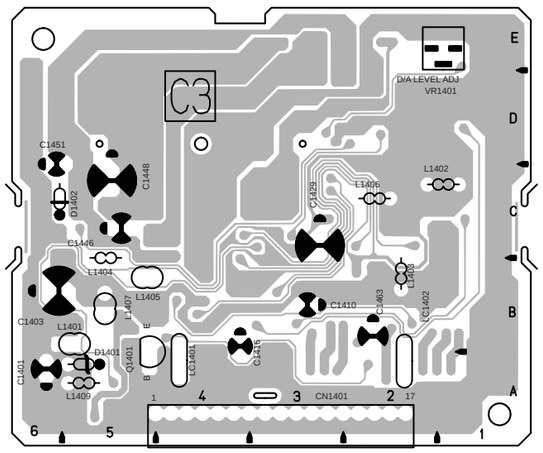
[FOR HR-S8960EX AND HR-S8965EK]

<05> 3D DIGITAL/2M
LPB10105-003A

- FOIL SIDE (B) -



- COMPONENT SIDE (A) -



COMPONENT PARTS LOCATION GUIDE <3D DIGITAL/2M> LPB10105-003A

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPASITOR		C1418	B C 5B	C1438	B C 3C	C1459	B C 1B	**DIODE**		**TRANSISTOR**		R1406	B C 2D	R1433	B C 2C	R1452	B C 3A
C1401	A D 6A	C1420	B C 5B	C1439	B C 3C	C1460	B C 2B	D1401	A D 5A	Q1401	A D 5B	R1408	B C 2D	R1434	B C 3D	R1453	B C 3A
C1402	B C 5A	C1421	B C 5C	C1440	B C 3C	C1461	B C 2B	D1402	A D 6C	Q1402	B C 1C	R1410	B C 2D	R1435	B C 2E	R1454	B C 4A
C1403	A D 5B	C1422	B C 5B	C1441	B C 3B	C1462	B C 2A			Q1404	B C 1D	R1411	B C 2B	R1436	B C 1E	R1455	B C 5A
C1404	B C 1C	C1423	B C 6B	C1442	B C 3B	C1463	A D 2B	**IC**		Q1406	B C 2B	R1412	B C 2B	R1437	B C 4B	R1456	B C 5A
C1405	B C 1D	C1424	B C 2D	C1443	B C 4B	C1464	B C 3B	IC1401	B C 4D	Q1408	B C 4B	R1413	B C 1B	R1438	B C 4C	R1459	B C 4B
C1406	B C 3B	C1425	B C 2C	C1444	B C 3B	C1465	B C 3B			Q1412	B C 2C	R1416	B C 3B	R1440	B C 5C	R1460	B C 2A
C1407	B C 1C	C1426	B C 2C	C1445	B C 4C	C1466	B C 3A	**COIL**		Q1414	B C 3B	R1417	B C 4B	R1441	B C 4A		
C1408	B C 1C	C1427	B C 2C	C1446	A D 5C	C1467	B C 3B	L1401	A D 5B	Q1415	B C 5A	R1418	B C 3B	R1442	B C 4A	**OTHER**	
C1409	B C 2C	C1428	B C 2C	C1447	B C 5C	C1468	B C 4A	L1402	A D 2C	Q1418	B C 4B	R1421	B C 5B	R1444	B C 1E	B1409	B C 3A
C1410	A D 3B	C1429	A D 3C	C1448	A D 5C	C1469	B C 4A	L1403	A D 2B	Q1419	B C 2A	R1425	B C 5C	R1445	B C 1E	B1412	B C 3B
C1411	B C 3B	C1430	B C 4E	C1449	B C 4C	C1470	B C 5A	L1404	A D 5C			R1426	B C 5C	R1446	B C 4B	B1416	B C 2D
C1412	B C 2B	C1432	B C 3D	C1450	B C 4C	C1471	B C 2D	L1405	A D 4B	**RESISTOR**		R1427	B C 2D	R1447	B C 1A	LC1401	A D 4A
C1413	B C 2B	C1433	B C 3D	C1451	A D 5D	C1472	B C 3C	L1406	A D 2C	R1401	B C 5A	R1428	B C 2D	R1448	B C 2A	LC1402	A D 2A
C1414	B C 2B	C1434	B C 3D	C1452	B C 5C	C1473	B C 3C	L1407	A D 5B	R1402	B C 5A	R1429	B C 2D	R1449	B C 2A	VR1401	A D 1E
C1415	B C 1B	C1435	B C 3D	C1453	B C 5D			L1409	A D 5A	R1404	B C 2C	R1430	B C 2C	R1450	B C 2A		
C1416	A D 4A	C1436	B C 3C	C1454	B C 5D	**CONECTOR**				R1405	B C 1D	R1431	B C 2C	R1451	B C 3A		
C1417	B C 4B	C1437	B C 3C	C1455	B C 4E	CN1401	A D 5A										

4.19 VOLTAGE CHARTS

<MAIN>

MODE PIN NO.	REC	PLAY
IC1		
1	1.6	2.2
2	2.8	2.8
3	2.5	2.5
4	1.9	1.4
5	1.9	1.4
6	2.3	2.1
7	2.0	0.7
8	0	0
9	2.6	3.0
10	2.4	2.5
11	3.0	3.1
12	2.8	2.4
13	3.0	3.1
14	3.6	2.4
15	0	0
16	2.8	2.8
17	1.5	1.5
18	2.8	2.8
19	0	3.8
20	2.8	2.8
21	1.5	1.9
22	2.8	2.8
23	3.0	2.8
24	5.0	5.0
25	0.3	0
26	0	0
27	1.3	2.3
28	0	2.3
29	1.8	1.9
30	2.1	2.1
31	0	0
32	2.5	2.5
33	5.0	5.0
34	2.7	2.5
35	5.0	0
36	2.5	2.1
37	2.3	1.2
38	2.1	1.6
39	1.3	2.7
40	1.6	2.1
41	0	2.1
42	2.1	4.6
43	0	0
44	4.6	2.1
45	4.6	4.6
46	2.8	4.6
47	2.5	2.9
48	5.0	2.6
49	2.5	5.0
50	2.8	2.5
51	2.8	2.8
52	0	0
53	2.5	2.5
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	2.0	2.0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	3.0	3.1
74	0	0
75	3.1	0
76	0.3	4.6
77	0	0
78	0	0
79	5.0	5.0
80	0	5.0
81	0	0
82	0	0
83	0	0
84	2.4	2.3
85	0	2.3
86	2.4	2.3
87	5.0	5.0
88	0	0
89	0	0
90	0	0
91	0	2.2
92	2.6	0
93	0	0.5
94	0	0
95	0	2.5
96	2.5	2.5
97	2.5	2.5
98	0	0
99	0	2.5
100	0	0

MODE PIN NO.	REC	PLAY
IC201		
1	0	0
2	2.6	2.6
3	4.9	4.9
4	0	0
5	4.0	-
6	2.4	2.4
7	2.4	2.4
8	4.9	5.0
9	3.3	3.2
10	4.5	4.5
11	4.8	4.7
12	4.9	5.0
13	2.7	2.8
14	2.8	2.8
15	0	0
16	1.2	1.2
17	0	0
18	4.9	5.0
19	2.3	2.3
20	0	0
21	2.3	2.3
22	1.1	1.4
23	4.9	5.0
24	2.8	2.9
25	2.4	2.5
26	4.9	5.0
27	3.9	-
28	3.5	3.6
29	4.9	5.0
30	4.9	5.0
IC2201		
1	2.4	2.4
2	0	0
3	2.4	2.4
4	0	0
5	0	0
6	0	2.5
7	2.0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	2.0	2.0
13	0	0
14	0	0
15	0	0
16	2.4	2.5
17	0.5	0.7
18	2.5	2.5
19	2.5	2.5
20	2.5	0.3
21	2.5	0
22	2.5	0.6
23	0	0
24	2.5	0.6
25	4.9	5.0
26	2.5	0
27	0	-
28	4.2	2.3
29	4.1	1.8
30	3.8	1.7
31	0.9	2.7
32	2.5	2.5
33	2.5	2.5
34	0.4	0.7
35	2.5	2.4
36	0	0
37	1.6	1.6
38	0	0
39	0	0
40	5.0	5.0
41	0	0
42	4.6	4.6
43	4.6	4.6
44	3.3	3.3
45	0	0
46	4.8	4.8
47	2.5	2.5
48	2.5	2.5
49	0.2	0.2
50	0.2	0.2
51	0	0
52	0	0
53	4.4	4.4
54	0	0
55	0	0
56	0	0
57	4.5	4.4
58	8.4	8.4
59	4.6	4.5
60	0	0
61	2.5	2.5
62	2.4	2.4
63	4.4	4.5
64	4.5	4.5
IC3001		
1	-	2.5
2	0	0
3	-	2.5
4	2.5	2.5

MODE PIN NO.	REC	PLAY
5	0.5	1.1
6	2.5	2.5
7	2.4	2.4
8	2.5	2.5
9	4.9	5.0
10	4.9	4.9
11	0	0
12	1.2	1.3
13	0	2.5
14	4.5	4.5
15	4.8	4.8
16	4.9	4.9
17	4.3	4.3
18	0	0
19	4.9	4.9
20	4.5	4.5
21	3.8	3.9
22	4.2	2.5
23	0	0
24	4.8	4.8
25	0	0
26	4.9	4.9
27	0	0
28	0	0
29	0	4.8
30	4.4	4.4
31	4.9	4.9
32	4.9	4.9
33	0	0
34	4.4	4.4
35	2.5	2.5
36	4.9	4.9
37	4.4	0
38	0	3.9
39	4.4	4.4
40	0	0
41	4.8	4.8
42	4.4	4.4
43	0	0
44	0	0
45	4.9	4.9
46	0	0
47	2.8	2.8
48	0	0
49	4.5	4.6
50	4.6	4.6
51	4.4	4.4
52	4.7	4.8
53	4.5	4.5
54	-	-
55	-	-
56	4.9	4.9
57	0	4.9
58	4.9	4.9
59	0	0
60	0	0
61	4.2	4.3
62	0	0
63	0	0
64	1.5	1.5
65	0.9	1.3
66	4.9	4.9
67	2.4	-
68	0	0
69	2.4	2.5
70	4.9	4.9
71	4.9	4.9
72	4.9	5
73	4.7	4.8
74	0	0
75	-	3.9
76	-	-
77	0	0
78	0	0
79	0	4.9
80	0	0
81	4.9	4.9
82	4.9	4.9
83	-	-
84	0	0
85	4.9	0
86	4.9	0
87	0	0
88	4.7	0
89	0	0
90	4.8	0
91	-	3.7
92	-	4.1
93	3.4	-
94	-	-
95	-	-
96	-	-
97	-	-
98	0.7	0.7
99	0	-
100	-	-
101	2.6	2.6
102	2.6	2.6
103	4.9	4.9
104	4.9	0
105	4.9	0

MODE PIN NO.	REC	PLAY
106	0	4.8
107	1.3	1.6
108	1.3	1.3
109	4.9	4.9
110	0	0
111	0	0
112	2.4	2.3
IC3002		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	0	0
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	-	-
6	-	4.0
7	0	0
8	4.9	4.9
IC7002		
1	4.8	4.8
2	4.9	4.9
3	0	0
CN1		
1	0	0
2	0	0
3	0	0
4	2.4	2.2
5	2.4	2.2
6	2.4	2.3
7	2.5	0
8	2.5	0
9	2.5	0
10	0	0
11	0	0
CN501		
1	2.6	2.6
2	0	0
3	2.4	2.5
4	4.9	5.0
5	2.1	2.1
6	0.3	4.4
7	3.3	3.3
8	0	0
9	2.8	2.8
10	0	0
11	4.6	4.6
12	4.6	4.6
13	0	0
14	0.7	0.7
15	0	-
16	0	0
17	-	-
CN901		
1	4.6	4.6
2	4.6	4.6
3	0.3	4.3
4	0	0
5	2.5	2.3
6	0	0
7	3.6	2.4
8	0	0
9	2.8	2.8
10	5.0	5.0
CN902		
1	2.7	2.7
2	0	0
3	0	0
4	2.4	2.1
5	1.3	2.3
6	4.9	4.9
7	0	0
8	0	0
9	2.3	2.3
10	0	0
11	0	0
12	2.3	2.3
CN903		
1	4.7	4.7
2	0	0
3	0	0
4	0	0
5	0.7	0.7
6	10.7	10.7
7	10.7	10.7
8	4.1	4.0
9	4.0	-
10	0	0
CN904		
1	0	0
2	4.9	4.9
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0

MODE PIN NO.	REC	PLAY
11	0	0
CN905		
1	2.6	2.6
2	0	0
3	2.8	2.8
4	0	0
5	3.3	3.3
6	0	0
7	2.1	2.1
8	0	0
9	2.4	2.5
CN2001		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.2	2.5
6	2.2	2.5
CN2002		
1	0	0
2	0	0
CN3001		
1	2.5	2.5
2	12.1	12.2
3	5.0	5.0
4	0	0
5	6.7	6.7
6	0	0
7	0	0
8	12.1	12.1
9	2.7	2.7
10	2.5	2.5
11	1.3	1.4
12	2.6	2.6
CN3901		
1	0	0
2	4.9	4.9
3	0	0
4	4.9	4.9
5	2.9	3.0
6	0	0
CN6701		
1	0	0
2	-	-
3	-	-
4	4.8	4.8
5	0	0
6	0	0
7	4.9	4.9
8	0	0
9	0	0
10	0	0
CN7002		
1	4.9	4.9
2	4.9	4.9
3	0	0
4	4.9	4.9

<3D TBC(2M)>

MODE PIN NO.	REC	PLAY
IC1401		
1	0.2	0
2	0	0
3	3.3	0
4	3.3	3.3
5	0	2.4
6	0	0
7	-	2.4
8	0.7	0.7
9	0	0
10	0	0
11	3.7	3.7
12	4.7	4.6
13	0	0
14	2.4	2.5
15	2.3	2.3
16	3.2	3.2
17	0.8	0.8
18	0	0
19	0.4	0.4
20	0.9	1.0
21	1.0	1.0
22	3.3	3.3
23	2.1	2.1
24	1.4	1.5
25	2.6	2.6
26	0.5	0.5
27	2.6	2.6
28	0.5	0.5
29	1.5	1.5
30	0	0
31	1.6	1.6
32	3.3	3.3
33	1.6	1.6
34	0	0
35	0	0
36	0.5	0.5
37	3.3	3.3
38	1.9	2.0
39	1.2	1.2
40	1.2	1.2
41	3.3	3.3
42	2.5	2.5
43	0	0
44	3.3	3.3
45	3.3	3.3
46	2.5	2.5
47	0	0
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	3.3	3.3
56	0	0
57	0	0
58	0	0
59	0	0
60	3.3	3.3
61	3.3	3.3
62	1.6	1.6
63	3.3	3.3
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	3.3
70	3.3	3.3
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	2.5	2.5
78	0	0
79	0	0
80	0	0
CN1401		
1	2.6	2.6
2	0	0
3	2.4	2.5
4	5.0	5.0
5	2.1	2.1
6	0.3	4.3
7	3.3	3.3
8	0	0
9	2.8	2.9
10	0	0
11	4.7	4.6
12	0	4.6
13	0	0
14	0.7	0.7

<TERMINAL>

MODE PIN NO.	REC	PLAY
IC501	-	-
IC502		
1	2.0	2
2	0.3	4.4
3	3.4	3.4
4	3.4	3.4
5	5.0	5.0
6	2.2	2.2
7	2.0	2.0
8	5.0	5.0
9	1.4	1.4
10	2.9	2.9
11	2.9	2.9
12	2.9	2.8
13	0	0
14	2.8	2.9
15	2.8	2.9
16	1.9	2.0
17	2.0	2.0
18	1.9	2.0
IC901	-	-
CN911		
1	4.6	4.6
2	4.6	4.6
3	0.3	4.3
4	0	0
5	2.5	2.3
6	0	0
7	3.6	2.4
8	0	0
9	2.8	2.8
10	5.0	5.0
CN912		
1	2.7	2.7
2	0	0
3	0	0
4	2.4	2.1
5	1.3	2.3
6	4.9	4.9
7	0	0
8	0	0
9	2.3	2.3
10	0	0
11	0	0
12	2.3	2.3
CN913		
1	4.7	4.7
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN914		
1	0	0
2	4.9	4.9
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN915		
1	2.6	2.6
2	0	0
3	2.8	2.8
4	0	0
5	3.3	3.3
6	0	0
7	2.1	2.1
8	0	0
9	2.4	2.5
CN916	-	-

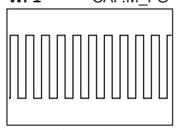
<DEMOD>

MODE PIN NO.	REC	PLAY
IC6701		
1	4.3	4.3
2	1.5	1.5
3	1.5	0
4	0	0
5	2.0	2
6	1.9	1.9
7	0.2	0.2
8	0	0
9	0	0
10	3.6	3.6
11	3.6	4.5
12	4.5	4.5
13	4.5	2.2
14	2.2	2.2
15	2.1	2.2
16	0	0
17	0.3	0.3
18	0.3	0.3
19	4.5	4.5
20	0	0
21	0.3	0.3
22	4.7	4.7
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	2.4	2.4
31	2.4	2.4
32	0	0
33	4.7	4.7
34	3.8	3.8
35	0	0
36	2.4	2.4
37	0	0
38	0	0
39	0	0
40	0	0
41	0	0
42	2.5	2.5
43	2.4	2.4
44	0	0
45	0	0
46	4.6	4.6
47	4.6	4.6
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
73	0	0
74	0	0
75	0	0
76	0	0
77	0	0
78	0	0
79	0	0
80	0	0

4.20 WAVEFORMS

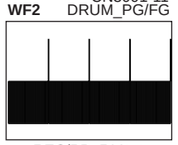
< SYSCON >

WF1 CN3001-1 CAP.M_FG



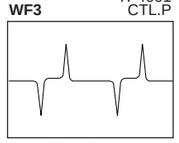
REC/PB 4.9 Vp-p
0.1 V/0.5 msec/DIV

WF2 CN3001-11 DRUM_PG/FG



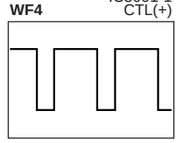
REC/PB 5 Vp-p
0.1 V/5 msec/DIV

WF3 TP4001 CTL.P



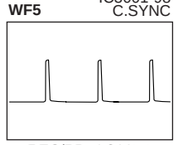
PB 2.0 Vp-p
50 mV/5 msec/DIV

WF4 IC3001-1 CTL(+)



REC 3.6 Vp-p
0.1 V/5 msec/DIV

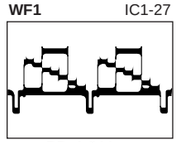
WF5 IC3001-98 C.SYNC



REC/PB 4.2 Vp-p
0.1 V/20 µsec/DIV

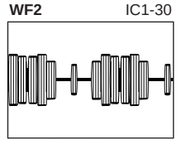
< VIDEO >

WF1 IC1-27



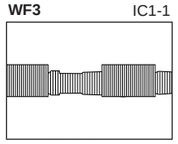
PB 1.8 Vp-p
50 mV/20 µsec/DIV

WF2 IC1-30



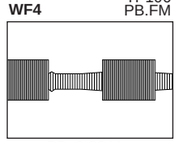
PB 0.68 Vp-p
20 mV/20 µsec/DIV

WF3 IC1-1



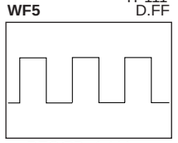
PB 0.3 Vp-p
20 mV/5 msec/DIV

WF4 TP106 PB.FM



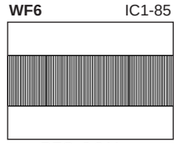
PB 0.36 Vp-p
20 mV/5 msec/DIV

WF5 TP111 D.FF



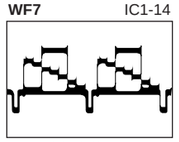
REC/PB 4.4 Vp-p
0.1 V/10 msec/DIV

WF6 IC1-85



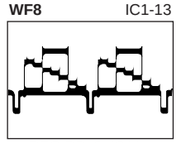
REC 2.0 Vp-p
0.1 V/1 msec/DIV

WF7 IC1-14



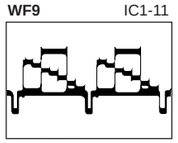
PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF8 IC1-13



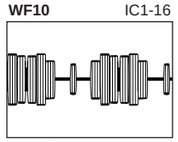
REC/PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF9 IC1-11



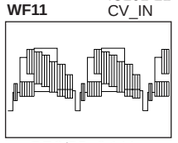
REC/PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF10 IC1-16



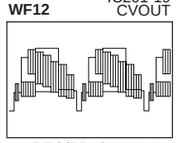
REC 0.68 Vp-p
20 mV/20 µsec/DIV

WF11 IC201-21 CV_IN



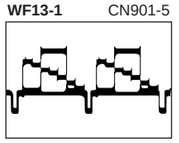
REC/PB 2.1 Vp-p
50 mV/20 µsec/DIV

WF12 IC201-19 CVOUT



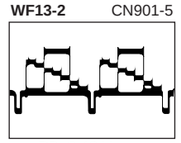
REC/PB 2.1 Vp-p
50 mV/20 µsec/DIV

WF13-1 CN901-5



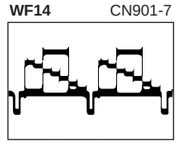
REC 0.52 Vp-p
20 mV/20 µsec/DIV

WF13-2 CN901-5



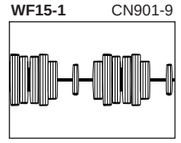
PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF14 CN901-7



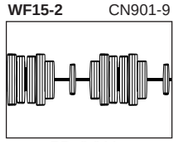
PB 0.42 Vp-p
20 mV/20 µsec/DIV

WF15-1 CN901-9



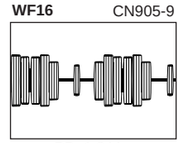
REC 0.68 Vp-p
20 mV/20 µsec/DIV

WF15-2 CN901-9



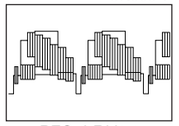
PB 2.6 Vp-p
50 mV/20 µsec/DIV

WF16 CN905-9



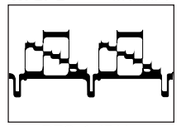
PB 1.3 Vp-p
50 mV/20 µsec/DIV

WF17-1 CN905-7



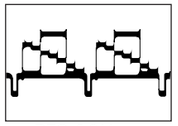
REC 1.7 Vp-p
50 mV/20 µsec/DIV

WF17-2 CN905-7



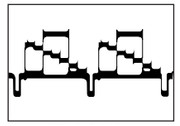
REC 1.45 Vp-p
50 mV/20 µsec/DIV

WF18-1 CN905-5



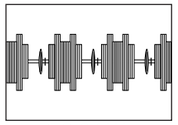
REC 0.6 Vp-p
20 mV/20 µsec/DIV

WF18-2 CN905-5



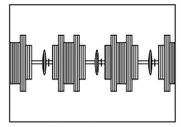
PB 0.64 Vp-p
20 mV/20 µsec/DIV

WF19-1 CN905-3



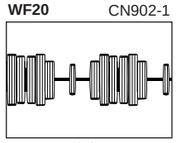
REC 0.44 Vp-p
20 mV/20 µsec/DIV

WF19-2 CN905-3



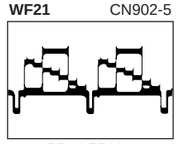
PB 0.72 Vp-p
20 mV/20 µsec/DIV

WF20 CN902-1



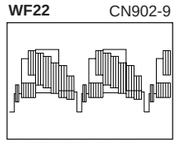
PB 0.6 Vp-p
20 mV/20 µsec/DIV

WF21 CN902-5



PB 1.75 Vp-p
50 mV/20 µsec/DIV

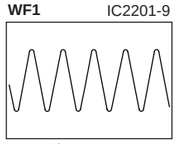
WF22 CN902-9



REC/PB 2.1 Vp-p
50 mV/20 µsec/DIV

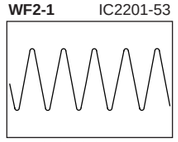
< AUDIO >

WF1 IC2201-9



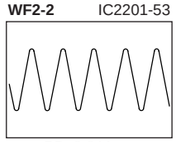
REC/PB 0.4 Vp-p
5 mV/0.5 msec/DIV

WF2-1 IC2201-53



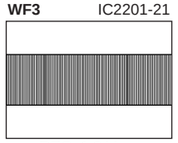
REC 0.36 Vp-p
20 mV/0.5 msec/DIV

WF2-2 IC2201-53



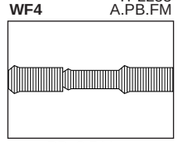
PB 0.6 Vp-p
20 mV/0.5 msec/DIV

WF3 IC2201-21



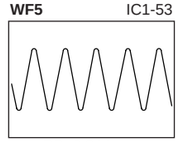
REC 1.0 Vp-p
0.1 V/5 msec/DIV

WF4 TP2253 A.PB.FM



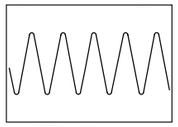
PB 0.5 Vp-p
50 mV/5 msec/DIV

WF5 IC1-53



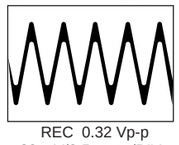
PB 0.3 Vp-p
10 mV/0.5 msec/DIV

WF6 IC1-63



REC 40m Vp-p
2 mV/0.5 msec/DIV

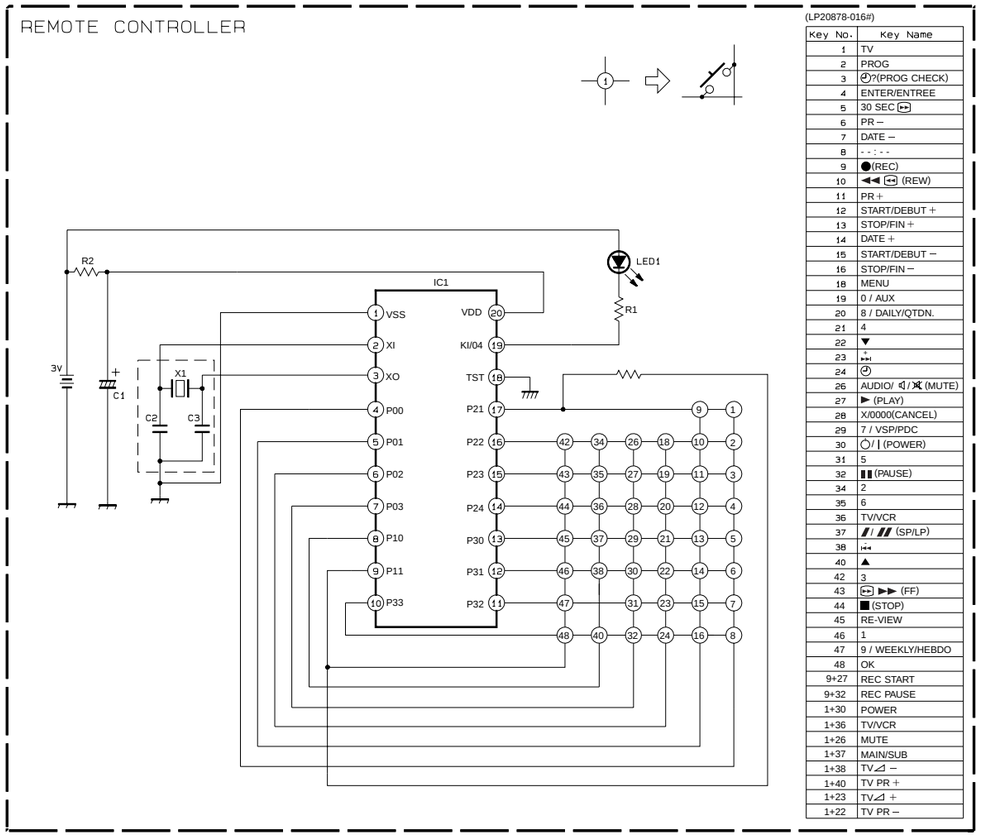
WF7 IC1-99



REC 0.32 Vp-p
20 mV/0.5 msec/DIV

4.21 REMOTE CONTROLLER SCHEMATIC DIAGRAM

NOTES:
1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
   Avoid replacing individual parts.
   Replace the entire unit only.

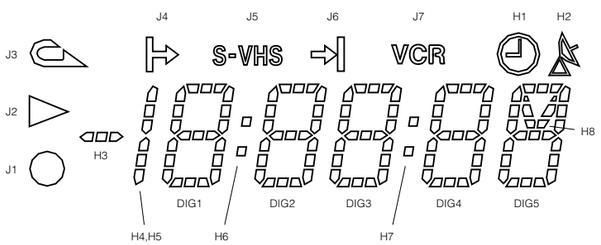


(LP20878-016#)

Key No.	Key Name
1	TV
2	PROG
3	?(PROG CHECK)
4	ENTER/ENTREE
5	30 SEC
6	PR –
7	DATE –
8	- - : - -
9	●(REC)
10	◄◄ (REW)
11	PR +
12	START/DEBUT +
13	STOP/FIN +
14	DATE +
15	START/DEBUT –
16	STOP/FIN –
18	MENU
19	0 / AUX
20	8 / DAILY/QTDN.
21	4
22	▼
23	+ ▸▸I
24	
26	AUDIO/ (MUTE)
27	► (PLAY)
28	X/0000(CANCEL)
29	7 / VSP/PDC
30	/ (POWER)
31	5
32	▮▮ (PAUSE)
34	2
35	6
36	TV/VCR
37	/ (SP/LP)
38	I◂◂
40	▲
42	3
43	►► (FF)
44	■ (STOP)
45	RE-VIEW
46	1
47	9 / WEEKLY/HEBDO
48	OK
9+27	REC START
9+32	REC PAUSE
1+30	POWER
1+36	TV/VCR
1+26	MUTE
1+37	MAIN/SUB
1+38	TV –
1+40	TV PR +
1+23	TV +
1+22	TV PR –

4.22 FDP GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

No.	CONNECTION
1	CATHODE G, J7, H8
2	CATHODE F, J6, H7
3	CATHODE E, J5, H6
4	CATHODE D, J4, H4, H5
5	CATHODE C, J3, H3
6	CATHODE B, J2, H2
7	CATHODE A, J1, H1
8	COMMON ANODE H1-H8
9	COMMON ANODE J1-J7
10	COMMON ANODE (DIGIT 5)
11	COMMON ANODE (DIGIT 4)
12	COMMON ANODE (DIGIT 3)
13	COMMON ANODE (DIGIT 2)
14	COMMON ANODE (DIGIT 1)

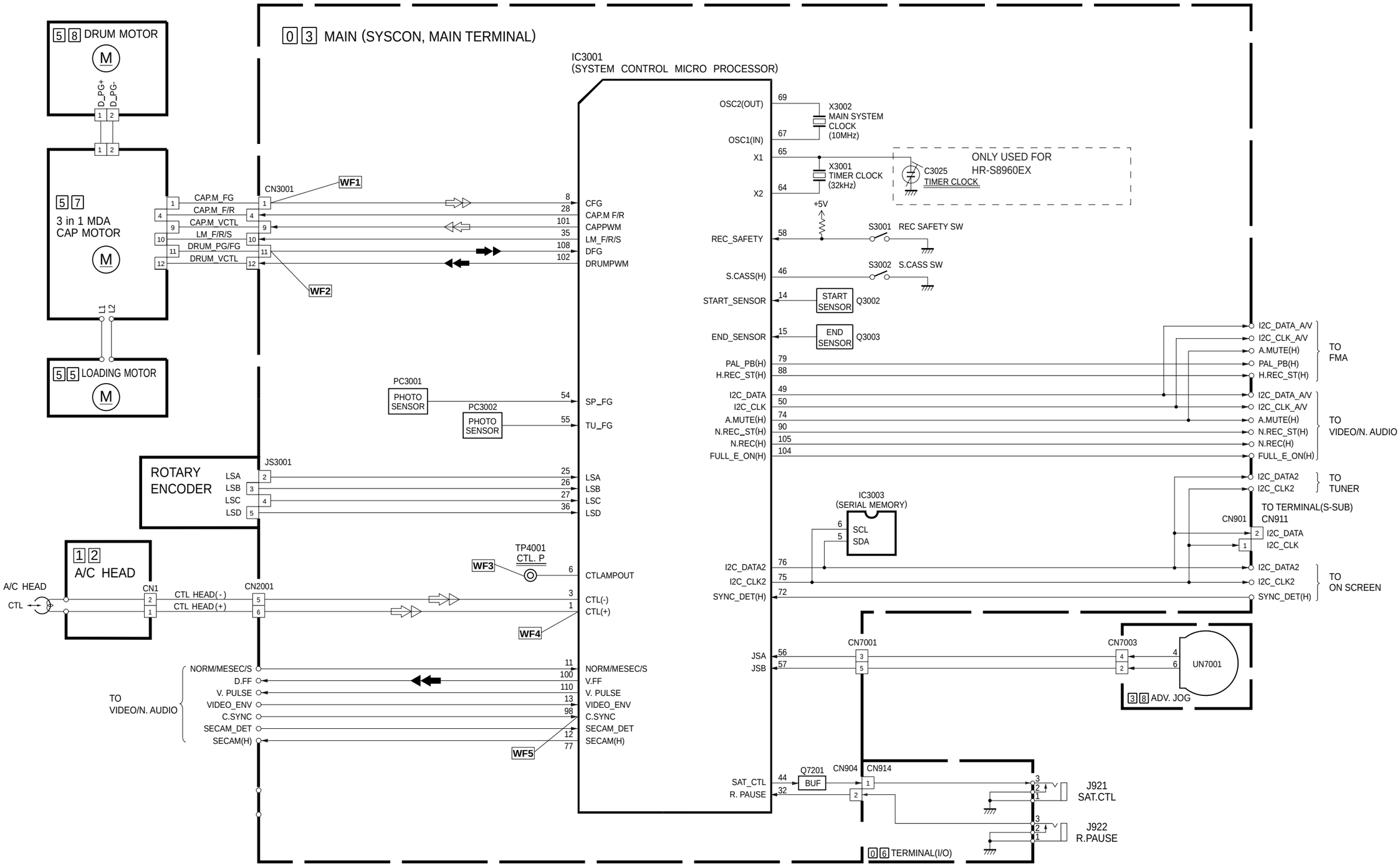
4.23 CPU PIN FUNCTION

<SYSCON IC3001>

PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN/OUT	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(-)	IN/OUT	CTL(-) SIGNAL
4	CTLBIAS	-	CTL BIAS VOLTAGE
5	CTLFB	IN	CTL PULSE FEEDBACK
6	CTLAMPOUT	OUT	CTL PULSE OUTPUT
7	CTLSMTIN	IN	CTL PULSE INPUT
8	CFG	IN	CAPSTAN FG PULSE INPUT
9	SVCC	-	SYSTEM POWER
10	AVCC	-	SYSTEM POWER FOR ANALOG CIRCUIT
11	NORM/MESEC/S	IN	(NORM MODE: L/MESECAM MODE: M/SVHS MODE:H)
12	SECAM_DET	IN	SECAM COLOR DETECT (SECAM:H)
13	VIDEO_ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
14	START_SENSOR	IN	START SENSOR
15	END_SENSOR	IN	END SENSOR
16	KEY1	IN	OPERATION CONTROL SIGNAL
17	PROTECT	IN	DETECTION SIGNAL FOR SW POWER SUPPLY
18	SCR_ID/	IN	SCRAMBLE CONTROL INPUT (SCRAMBLE:H)
19	KEY2	IN	OPERATION CONTROL SIGNAL
20	AFC	IN	TUNING CHECK
21	RF AGC	IN	CHANGES IN ATS+IC OUTPUT AS CAUSED BY CHANGES IN RECEIVER SENSITIVITY WHEN THE SAME CHANNEL IS RECEIVED MORE THAN ONCE ARE INPUT.
22	A.ENV/ND(L)	IN	AUDIO PB FM ENV.INPUT/NON HiFi MODE:L
23	AVSS	-	GND FOR ANALOG CIRCUIT
24	CTL_GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
25	LSA	IN	MECHANISM MODE DETECT(A)
26	LSB	IN	MECHANISM MODE DETECT(B)
27	LSC	IN	MECHANISM MODE DETECT(C)
28	CAP.M F/R	OUT	CAPSTAN MOTOR FORWARD/REVERSE CONTROL
29	RC	IN	REMOTE CONTROL DATA INPUT
30	DIG1	OUT	LED DRIVE
31	P50_IN	IN	CONTROL SIGNAL FOR TV LINK
32	R.PAUSE	IN	REMOTE PAUSE CONTROL
33	P50_OUT	OUT	CONTROL SIGNAL FOR TV LINK
34	DIG2	OUT	LED DRIVE
35	LM_F/R/S	OUT	LOADING MOTOR DRIVE
36	LSD	OUT	MECHANISM MODE DETECT (D)
37	DIG3	OUT	LED DRIVE
38	SB_GAIN(PWM)	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
39	DIG4	OUT	LED DRIVE
40	POWER_DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
41	P.CTL(H)	OUT	CONTROL SIGNAL FOR SWITCHING POWER SUPPLY
42	DIG5	OUT	LED DRIVE
43	VSS	-	GND
44	SAT_CTL	OUT	CONTROL SIGNAL FOR SATELLITE RECEIVER
45	VCC	-	SYSTEM POWER
46	S.CASS(H)	IN	DETECTION SIGNAL FOR SVHS CASSETTE (SVHS:H)
47	OSD_CS	OUT	CHIP SELECT FOR THE ON-SCREEN IC
48	MESECAM(H)/AGC_CTL	OUT	MESECAM: H/AGC CONTROL INPUT
49	I2C_DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
50	I2C_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC
51	DIG6	OUT	LED DRIVE
52	S.DATA_FRSYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN IC
53	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN IC
54	SP_FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
55	TU_FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
56	JSA	IN	INPUT FOR THE JOG SHUTTLE

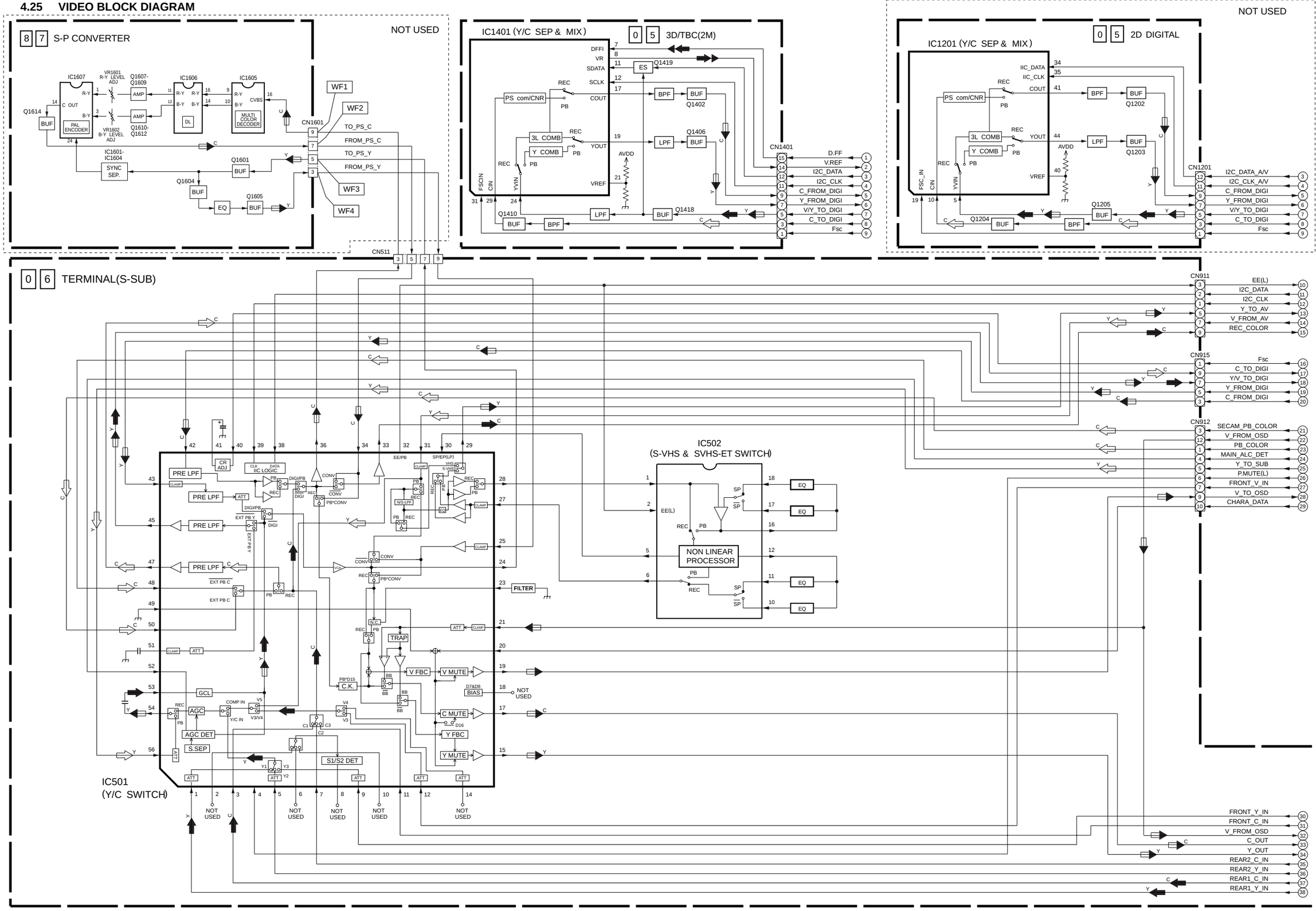
PIN NO.	LABEL	IN/OUT	FUNCTION
57	JSB	IN	INPUT FOR THE JOG SHUTTLE
58	REC_SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
59	SW1	OUT	TUNER SYSTEM MODE:H
60	SW2	OUT	TUNER SYSTEM MODE:L
61	DIG7	OUT	LED DRIVE
62	FWE	OUT	FLASH WRITE ENABLE
63	NMI(L)	-	CONNECT TO GND
64	X2	-	TIMER CLOCK (32.768KHz)
65	X1	-	TIMER CLOCK (32.768KHz)
66	RES	-	RESET TERMINAL (RESET ON:L)
67	OSC1(IN)	-	MAIN SYSTEM CLOCK(10MHz)
68	VSS	-	GND
69	OSC2(OUT)	-	MAIN SYSTEM CLOCK(10MHz)
70	VCC/VCL	-	SYSTEM POWER
71	MODE	IN	FWE MODE
72	SYNC DET(H)	IN	DETECTION OF VIDEO SYNC SIGNAL(DETECTED:H)
73	TU_V_MUTE(H)	OUT	TUNER VIDEO CONTROL (MUTE:H)
74	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE:H)
75	I2C_CLK2	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
76	I2C_DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
77	SECAM(H)	OUT	SECAM MODE:H
78	P.ON_PULSE	OUT	P.ON_PULSE(H)
79	PAL PB(H)	OUT	PAL FM(PB ON:H)
80	V.P.CTL	OUT	V.PULSE CONTROL, V COMPENSATION DURING SPECIAL PLAYBACK
81	VHS(H)	OUT	VHS MODE(H)
82	VCC	-	SYSTEM POWER
83	SLOW_P	OUT	MEMORY TIMING CONTROL IN THE SLOW MODE
84	VSS	-	GND
85	SP_SHORT(H)/FLY.ON(H)	OUT	MODE SELECT/FLYING ERASE ON:H
86	LP_SHORT(H)/FLY.REC(H)	OUT	MODE SELECT/FLY REC START:H
87	SEP(H)	OUT	SEP PB:H
88	H.REC_ST(H)	OUT	HIFI AUDIO SOUND RECORDING START
89	TRICK(H)	OUT	SPECIAL PLAYBACK:H
90	N.REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
91	Da	OUT	LED DRIVE
92	Db	OUT	LED DRIVE
93	Dc	OUT	LED DRIVE
94	Dd	OUT	LED DRIVE
95	De	OUT	LED DRIVE
96	Df	OUT	LED DRIVE
97	Dg	OUT	LED DRIVE
98	C.SYNC	IN	COMPOSITE SYNC
99	A.FF	OUT	AUDIO FF OUTPUT
100	V.FF	IN	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC
101	CAPPWM	OUT	CAPSTAN MOTOR CONTROL
102	DRUMPWM	OUT	DRUM MOTOR CONTROL
103	P.MUTE(L)	OUT	PICTURE MUTE CONTROL(MUTE:L)
104	FULL_E_ON(H)	OUT	FULL ERASE ON:H
105	N.REC(H)	OUT	NORMAL AUDIO REC MODE CONTROL SIGNAL (REC:H)
106	ET_REC(H)	OUT	ET REC MODE:H
107	HI_S_FF_REW	OUT	HIGH SPEED FF/REW CONTROL
108	DFG	IN	DRUM FG PULSE INPUT
109	VCC	-	SYSTEM POWER
110	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
111	VSS	-	GND
112	CTLREF	-	CTL REFERENCE VOLTAGE

4.24 SYSTEM CONTROL BLOCK DIAGRAM

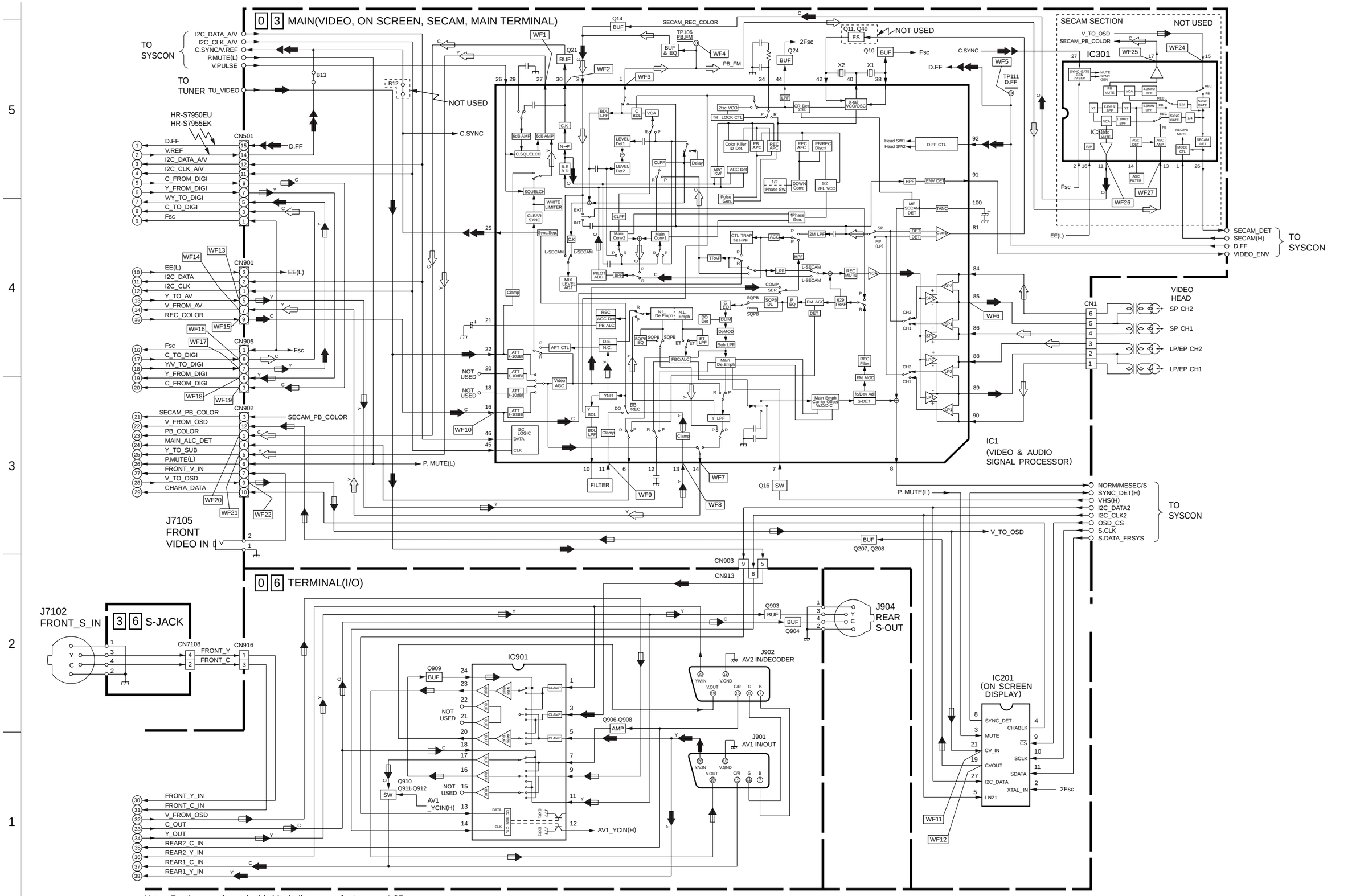


Note : For the waveforms in this block diagram, refer to page 4-37.

4.25 VIDEO BLOCK DIAGRAM

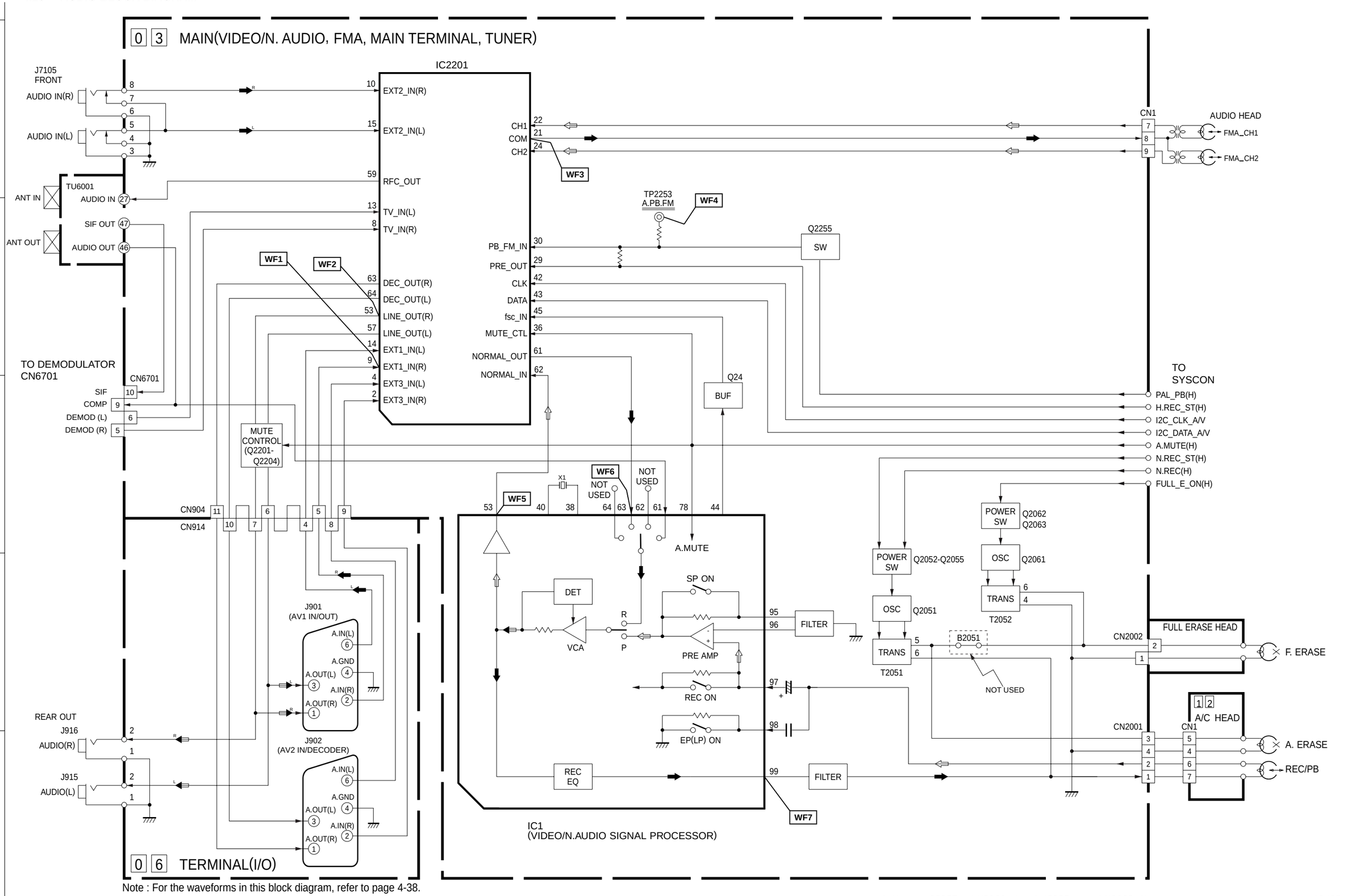


Note : For the waveforms in this block diagram, refer to page 4-37.



Note : For the waveforms in this block diagram, refer to page 4-37.

4.26 AUDIO BLOCK DIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-38.